



Research Product 97-09

Analysis of the Function to Coordinate, Synchronize, and Integrate Fire Support as Accomplished by a Corps

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U.S. Army Research Institute

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Advanced Training Methods Research Unit

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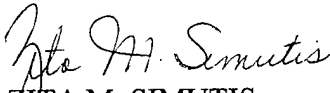
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FOREWORD

One of the goals for the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is to facilitate the training of Army units by designing strategies and methods that successfully incorporate emerging technologies such as distributed simulations. Part of meeting this goal is to have comprehensive descriptions of what needs to be trained. The coordination, synchronization, and integration of fire support presents particular training challenges and benefits. Joint fires can overwhelm an enemy force before friendly troops are put into harm's way.

This work is the third in a series of four reports that describe the complex procedure and performance of fire support at different echelons. The depiction of this combat force multiplier can be used by civilian and military trainers when assessing unit performance or developing enhanced training. ARI is using this work in its research on the effective use of distributed simulation for multi-Service and Joint training in support of ground operations.


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ANALYSIS OF THE FUNCTION TO COORDINATE, SYNCHRONIZE, AND INTEGRATE FIRE SUPPORT AS ACCOMPLISHED BY A CORPS

CONTENTS

	Page
INTRODUCTION	1
FUNCTIONAL ANALYSIS COMPONENTS OVERVIEW	1-1
PURPOSE AND OUTCOMES OF BF 15	2-1
FLOW CHARTS BY BATTLE PHASE (PLAN, PREPARE, EXECUTE)	3-1
OTHER BF _s THAT INTERACT WITH BF 15	4-1
KEY PARTICIPANTS BY TASK	5-1
KEY INPUTS AND OUTPUTS TO BF 15	6-1
TASK LIST SUMMARY	7-1
TASK LIST	8-1
Planning Task List	8-1
Preparation Task List	8-11
Execution Task List	8-17
BF ASSESSMENT PACKAGE	9-1
REFERENCES	10-1
APPENDIX A. INDEX OF BATTLEFIELD FUNCTIONS	A-1
B. STRUCTURE OF BATTLEFIELD FUNCTIONS	B-1
C. LIST OF ABBREVIATIONS AND ACRONYMS	C-1

LIST OF FIGURES

FIGURE	1. Division input to corps.	3-1
	2. Corps input to division.	3-2
	3. Division and corps exchanging information.	3-2
	4. Key task inputs and outputs	3-2
	5. Task linkage to other BF and units	3-3
	6. Other BF linkage to tasks	3-3

LIST OF TABLES

TABLE	1. Use of Corps Fire Support Components: Planning Phase	9-4
	2. Use of Corps Fire Support Components: Preparation Phase	9-6
	3. Use of Corps Fire Support Components: Execution Phase	9-7
	4. Acquisition of Targets and Execution of Fires: Counterfire Battle	9-8
	5. Acquisition of Targets and Execution of Fires: Deep Battle	9-9
	6. Acquisition of Targets and Execution of Fires: Close Battle	9-10
	7. Acquisition of Targets and Execution of Fires: Rear Battle	9-11

ANALYSIS OF THE FUNCTION TO COORDINATE, SYNCHRONIZE, AND INTEGRATE FIRE SUPPORT AS ACCOMPLISHED BY A CORPS

Introduction

Given the task-based nature of training, improved tools to identify, structure, and organize tasks are essential for maintaining training readiness. The changes in military missions for the 21st Century combined with decreasing budgets and numbers of personnel enhance the need for more efficient training development tools. Providing such tools has been a continuing effort of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI). The current effort specifically complements the Army Training and Evaluation Plan-Mission Training Plans (ARTEP-MTPs) and the Army's initiatives to improve training for multi-Service and joint operations. The point-of-departure is the set of Battlefield Operating Systems (BOSs). The purpose is to analyze a function and identify its components useful to trainers and training developers at the higher echelons.

A traditional approach to structuring training is listing tasks by mission as done in the ARTEP-MTPs. A complementary approach is to analyze functions. Several initiatives have considered tasks in relation to functional areas rather than missions. One such approach was adopted at the Combat Training Centers (CTCs). The specific approach developed in the mid-1970s used BOSs as the framework for after action reviews (AARs) and take-home packages. The BOSs are seven functional areas which encompass tactical operations.

In addition, to enhance the utility of the BOS structure, the U.S. Army Training and Doctrine Command (TRADOC) developed the Blueprint of the Battlefield. That work used the BOS structure as a framework to describe the tactical level of war in terms of operating systems, functions, and generic tasks. While the functional hierarchy in the Blueprint of the Battlefield provided finer granularity than the BOS, the Blueprint of the Battlefield did not represent battlefield processes, critical sequences of events, procedural steps, and many of the tasks that must be accomplished.

A recent initiative to consider tasks in relation to functions is called the Joint and Multi-Service Distributed Training Testbed (JMDT2), which addresses training development for multi-Service or joint operations. It depends on the analysis of functions to help organize the extensive kinds and numbers of tasks. JMDT2 is a research program to develop improved methods and metrics for assessing training effectiveness and estimating combat readiness. Included are (a) metrics for how well forces coordinate and synchronize resources such as firepower, and (b) tools for providing meaningful feedback through debriefings and AARs. JMDT2 is being conducted by ARI in cooperation with the other military services and the Office of the Secretary of Defense. The initial phase (1993-1995) focused on training tactics, techniques, and procedures for multi-Service Close Air Support (CAS). The current phase focuses on training fire support and joint fires, the topic of the analysis described in this report.

This research product is part of an effort to improve further the functional structure for planning and assessing collective training through the identification and analysis of battlefield functions (BFs) defined as follows:

BATTLEFIELD FUNCTION: *Processes or activities occurring over time that must be performed to accomplish a mission(s) or supporting critical tasks. It provides task integration, combined arms interaction, and inter-Battlefield Operating Systems (BOSs) linkages.¹*

Like the Blueprint of the Battlefield, the BFs focus on functions (activities and processes that occur over time) while retaining granularity that supports task-based training. The BF analyses extend the Blueprint of the Battlefield in two ways:

- Identify relationships among BOSs, tasks, echelons, and people required to achieve identified outcomes, thus improving representation of battlefield processes and sequences of events.
- Provide explicit ties to tasks derived from ARTEP-MTPs and doctrine, tactics, techniques, and procedures described in doctrinal manuals, applied at CTCs, or identified by experienced field commanders, thus improving representation of procedural steps and tasks that must be accomplished.

Functional analyses of BFs are conducted at a level of detail that supports a functional approach to training. This approach uses battlefield functions performed by units as the basis for planning training and for assessing its proficiency. The analyses provide a context and a framework to apply the functional approach to training. They build on previous work from functional analyses for an armored battalion task force and brigade combat team, and existing doctrinal publications and information relevant to the function of coordinating, synchronizing, and integrating fire support. The information about fire support came from a combination of existing military publications and subject matter experts.

The function of Coordinate, Synchronize, and Integrate Fire Support addresses all aspects of targeting and the applications of lethal and non-lethal fires delivered by all services on the enemy or terrain to support the corps commander's concept and intent. Offensive use of nuclear, biological and chemical (NBC) agents is not addressed in this task analysis to reflect the policy of the United States government.

This analysis portrays the corps serving within a joint task force (JTF). It reflects tasks, products, and participants required by the corps to employ all aspects of indirect fire support available and employed under corps control (i.e., artillery, mortars, close air support (CAS), electronic warfare (EW), naval surface fires (NSF), and Army aviation²).

¹The term "Battlefield Function (BF)" was designated by TRADOC in September 1996 to replace "Critical Combat Function (CCF)". TRADOC also renamed "task analysis" (TA) to "function analysis" (FA).

²Although Army aviation is a maneuver force, it is also integral to providing fire support at the corps level in a joint environment. Hence, it has been included as an adjunct of indirect fire support because the use of attack helicopters is a course of action that will be considered by the corps targeting cell. Additionally, Army aviation elements are important target acquisition assets.

The battle phases PLAN, PREPARE, and EXECUTE relate to the entire corps battle-- not just to this particular BF. The analysis identifies the tasks that the corps commander, staff, and all subordinate and supporting elements of the corps must perform to coordinate, synchronize, and integrate all indirect fire support. The processes are continuous due to the continual nature of battle. However, for the purpose of analysis and for portrayal, the analysis is depicted as beginning with the receipt of the JTF warning order. It addresses the actions and coordination activities initiated by the corps commander and staff (planning phase); continues through the corps preparation for battle by detailing the modification and refinement of the fire support plan (preparation phase); and culminates with the synchronized and integrated employment of indirect fires during conduct of the battle and consolidation/reorganization following the battle, including those actions required to react to unexpected changes in the battle plan (execution phase).

The analysis does not address the technical tasks necessary to actually fire artillery or naval surface fires, prepare and deliver CAS or Army aviation fires, or conduct offensive electronic warfare.

This functional analysis focuses on the coordination tasks necessary to synchronize and integrate all indirect fires with the corps scheme of maneuver during deep, close, and rear operations. Since the corps habitually fights as part of a joint force, the analysis includes the integration of external assets such as tactical air control parties (TACPs) and air liaison officers (ALOs) for CAS, and an air and naval gunfire liaison company (ANGLICO) for naval surface fires and control of naval air.

The level of detail and the tasks examined were selected as important for a corps-level collective training strategy. Individual proficiency in branch related skills required to execute the collective tasks is assumed due to the experience level of officers and non-commissioned officers (NCOs) serving at the corps level.

An assessment package was developed for the function. Using the measures of effectiveness and performance provided, commanders and trainers can assess unit performance and prepare AARs at several levels of detail and from different perspectives, (e.g., battle phase, asset utilization).

In this analysis, an effort was made to identify specific task titles taken directly from the appropriate ARTEP-MTP. Those task titles not taken from the ARTEP-MTP are derived titles that may apply to either: a) a part of a subtask or other element of the ARTEP-MTP; b) multiple subtasks of different, but related, tasks of an ARTEP-MTP; c) tasks not contained in the ARTEP-MTP, but implied by other tasks; d) requirements in appropriate field manuals (FMs) or other relevant documents; e) or performance requirements considered necessary based on experiences of serving and former corps commanders.

The BFs which cover the command and control BOS as performed by a corps have not been analyzed. Tasks about these BFs (BF 18 [Plan for Combat Operations], BF 19 [Direct and Lead Units During Preparation for the Battle], and BF 20 [Direct and Lead Units in Execution of Battle]) were extrapolated and have been integrated into this task analysis. Integrated as well are relevant tasks selected from the functional analyses of JTF, division, brigade, and battalion task force

performance of BF 15. These linkages describe the horizontal interrelationship of tasks among BFs at a given echelon and the vertical relationship between echelons within a BF required for mission accomplishment.

Three appendices are included in this report. Appendix A provides a listing of the thirty-nine (39) BFs relevant to tactical echelon units grouped by the BOS they support. Not all the BFs listed are germane to corps-level training. Appendix B provides the definition of each BF. Appendix C is a listing of the abbreviations and acronyms used in this report.

Functional Analysis Components Overview

The purpose of this section is to present a brief overview of the components of this analysis. The components facilitate use of the analysis for a variety of purposes. Several applications are described in the next section. The title and a brief description of each component follow.

Introduction: Information is provided concerning the presentation of analysis components and the context in which the analysis was developed. The information provides an overview of the analytical approach.

Purpose and Outcomes of BF 15: The overall end result which the BF is supposed to accomplish, termed the purpose, is identified. This component also identifies the end states or bottom line results necessary to achieve the purpose, termed outcomes. As a consequence, this component of the analysis defines the end states that performance of the tasks must accomplish.

Flow Charts by Battle Phase (Plan, Prepare, Execute): This graphical description portrays the sequence of BF tasks within the framework of tactical battle phases. This component describes the flow of tasks during each battle phase, the vertical task linkages (to higher and lower echelon units), and horizontal linkages to other BFs for the echelon being analyzed. It also depicts information flow which affects the tasks.

Other BFs Which Interact with BF 15: Tasks performed in other BFs or by other units are described as they relate (i.e., are linked) to the tasks of BF 15. These descriptions provide verbal details of the relationships portrayed graphically by the Flow Charts. The purpose of this component is to allow the user to incorporate related tasks and participants into a training exercise for this BF. Tasks which link to this analysis have been extracted for BFs or units for which functional analyses have been accomplished and extrapolated for those which have not yet been developed.

BF 15 Key Participants by Task: The participants required to perform the tasks are identified. Identification is based on the appropriate echelon/type unit TO&E, and includes special staff members who are critical for task accomplishment.

Key Inputs and Outputs to BF 15: The critical information required and generated by participants to successfully accomplish the BF is identified. Where information results from the performance of the BF tasks, BF information output is identified. One BF's information output normally is provided as another BF's input. Critical input and output are organized by the specific part of the doctrinal product or means used to communicate it. The source of critical information is specific only to the BF echelon and function being analyzed, and is not intended to reflect all the information the product may contain. The linkages of inputs and outputs to specific tasks are depicted in the Flow Charts by Battle Phase component.

Task List Summary: The tasks which are required to achieve the purpose of the BF are listed and organized by battle phase.

Planning, Preparation, and Execution Task Lists: Tasks and supporting tasks necessary to perform the function are listed by battle phase. Normally, the task identifies the primary participants responsible for performing the tasks. The tasks have been extracted from the appropriate Army training and evaluation plan-mission training plans (ARTEP-MTPs), echelon and functional area field manuals (FMs), and proponent school special texts. The specific sources of references for each task and sub-task are shown in brackets [] following the task.

Assessment Package: A series of measures of effectiveness and performance are provided so that BF performance can be assessed from various perspectives and levels of detail. These measures are described with a brief rationale for their development and use.

References: The sources of information from which this BF function analysis is derived are listed. The source's title and publication date are provided for users to locate the doctrinal source material for further detail and context.

Use of the Functional Analysis

The analysis of a function can support a variety of uses. This section suggests general uses and informational needs that can be met for commanders and training developers.

Developers and commanders often begin by performing or examining one or more front end analyses (FEAs) to gain an understanding of a relevant issue. Whether they perform FEAs themselves or draw from available analyses (like the functional analyses), information is sought on many topics. Likely topics include the following (with relevant functional analyses' components indicated):

- What are the objectives/missions of the system? (Purpose and Outcomes)
- What are the vertical and horizontal linkages between elements, and what are the information inputs and outputs associated with these? (Flow Charts by Battle Phase, Other BFs which Interact with BF 15, and Key Inputs and Outputs to BF 15)
- What are the processes and tasks being performed within each element? (Task Lists and Flow Charts by Battle Phase)
- Who are the players and/or target audience? (BF 15 Key Participants by Task)

Two detailed examples of functional analysis usage are presented below. These examples demonstrate, first, how unit commanders and, second, how training developers can use the analyses. The examples can serve as a guide for other potential users since generic information within the functional analyses is transferable to the other applications.

Unit Commanders

Unit commanders use Army doctrine as contained in FM 25-100, Training the Force (November 1988), and FM 25-101, Battle Focused Training (September 1990) to assess training effectiveness and to plan training events. The functional analyses provide relevant information for assessment and planning within the intent of those documents. The added information supports functional training which uses proficiency related to functions as the basis for identifying tasks to be trained and structuring training on those tasks. The functional analyses supplement the training and assessment systems and processes already in use by commanders.

1. Conduct Training Assessment

The commander assesses the mission essential task list (METL) to identify functions that require attention, to select outcomes for training focus, and to provide specific guidance for training. This functional training assessment allows the commander to perform an analysis across several layers with a successively narrow focus:

- a. METL tasks.
- b. Each BOS for each METL task that requires remediation or sustainment.
- c. Relevant BFs for each BOS that requires remediation or sustainment.
- d. Relevant outcomes for each BF that requires remediation or sustainment.

The assessment module included with this task analysis provides a series of charts based on the BF purpose, outcomes, and tasks that facilitate the organization of observations and determination of a training assessment.

2. Plan Training Events

The functional analysis supports three tasks related to planning a training event. Use of the analysis to perform each of these tasks is described below.

a. Selecting Tasks and Supporting Tasks to be Trained

1) Selection of tasks by outcome or battle phase. When the training assessment identifies outcomes to be achieved, trainers can focus their attention on particular tasks that support the outcome. This requires sorting the tasks by outcomes. If trainers have no basis for identifying an outcome within the BF or if the training is to focus on a single battle phase, tasks can be selected from the Task List Summary component. This component is organized by the battle phases of plan, prepare, and execute. It is supported by the Flow Charts.

2) Selection of supporting tasks. Trainers must also select supporting tasks which make up blocks of performance required by the primary task. Each task and supporting task is structured to describe actions to be performed (e.g., steps) or the end states of the task (i.e., aspects of the standard). The detailed description for each task and supporting task is contained in the Task List for each phase of the battle.

3) Identification of references. The doctrinal source (publication number and task number or page number), in brackets, is included with the listing of each task and supporting task. Trainers can (a) determine the doctrinal publication title and publication date, and (b) refer to doctrinal source material for further detail and context, if desired.

b. Selecting the Training Audience. After determining which tasks must be trained, trainers should next identify the training audience. The BF 15 Key Participants by Task component of the functional analysis supports that analysis. This component specifies the participants required to perform the tasks selected for training. One potential result of this review is that trainers may have to coordinate (through the appropriate commanders) with external units to have a specific special staff member participate in the training event.

c. Identifying Task Training Sequences and Products to Support Training. Unit trainers must also decide which products and information sources must be replicated or emulated to introduce external stimuli to the training events. The Flow Charts by Battle Phase and Key Inputs and Outputs to BF 15 components help indicate that information.

The flow charts are a companion to the task lists. They provide a graphical description of tasks as they are sequenced within the framework of the battle phases. By using them, trainers can identify: (a) the flow of tasks during each battle phase; (b) vertical task linkages (to higher and lower echelon units); (c) horizontal task linkages (to tasks in other BFs for the echelon being analyzed); and (d) information input and output which affect relevant tasks. Although the sequencing of tasks throughout each battle phase is intended to reflect the flow of tasks, tasks may be performed concurrently or may interact with preceding or subsequent tasks.

The Input section of the Key Inputs and Outputs to BF 15 contains critical information, organized by the doctrinal product or means to communicate it, required by participants to achieve the purpose of the BF. The information and products described must be replicated to drive training events.

The Outputs section of the Key Inputs and Outputs to BF 15 describes information which results from the performance of the BF tasks. The Outputs should be covered by performance standards and usually should be part of the AAR.

Training Developers

Training developers provide new and modify existing training support material to facilitate use of new doctrine, emerging technologies, changes in organization, and strategies to cope with reduced resources and restricted training environments. Potential uses of a functional analysis include development of training support packages and development of training aids, devices, simulators, and simulations.

The TRADOC centers (branch proponents) develop training materials to guide individual and collective training. Training development is conducted within the framework of the systems approach to training. The analyses support the systems approach for collective training by

identifying not only the tasks for each type of unit, but also horizontal and vertical relationships within each BOS, relationships among BOS, and relevant details about the relationships. The descriptions of interrelationships, which illustrate the scope of required synchronization plus details about tasks and supporting tasks, provide training developers with in depth information about the content of training which they are supporting.

Purpose and Outcomes of BF 15

This component identifies what the BF is supposed to accomplish overall, which we term the purpose. The component also identifies the end states or bottom-line results necessary to achieve the purpose, which we term outcomes. As a consequence, this component of the analysis defines the end states that performance of the tasks will accomplish.

PURPOSE

The coordination, synchronization, and integration of targeting assets, indirect fire weapons, armed aircraft, naval surface fires, electronic countermeasures (ECM), and other lethal and non-lethal means against ground targets in support of corps operations.

OUTCOMES

1. The fire support plan effectively integrates all targeting means and indirect fire systems to support the corps scheme of maneuver, facilitate future operations, and provide the commander flexibility to react to unexpected enemy actions.
2. All target acquisition assets are positioned to observe, process, and as appropriate, control indirect fire support missions on named areas of interest (NAIs), target areas of interest (TAIs), and preplanned targets.
3. The corps fire support element (FSE) coordinates continuously with all fire support assets in order to ensure that their fires are thoroughly integrated, synchronized, and effectively delivered to support the corps scheme of maneuver and commander's intent.
4. Fires are delivered in a manner which avoids fratricide, collateral damage, and noncombatant casualties.

Flow Charts by Battle Phase (Plan, Prepare, Execute)

This component illustrates BF tasks as they are sequenced within the framework of tactical battle phases (e.g., planning, preparation, execution). The purpose of this component is (1) to indicate the flow of tasks during each battle phase, (2) to show vertical task linkages (to higher and lower echelon units) and horizontal task linkages (to other BF tasks for the echelon being analyzed), and (3) to depict information input and output which affects each task. Although the sequencing of tasks throughout each battle phase is intended to reflect the flow of tasks, tasks may be performed concurrently or may overlap with preceding or subsequent tasks.

Each echelon is labeled on the left of the flow chart. A horizontal line depicts the flow of tasks by sequence, reading left to right. The horizontal line for the echelon being analyzed is bolder than all other echelon horizontal lines.

Each task box contains a major task paraphrased from the BF Task List. On the inside and upper left corner of each task box is placed the appropriate task number from the task list. The linkages of tasks, both vertical and horizontal, are depicted with lines. Arrowheads are placed on the linking lines to reflect the relevance of the linkage. Examples follow:

Figure 1 illustrates a division's task providing input or otherwise supporting the corps' task.

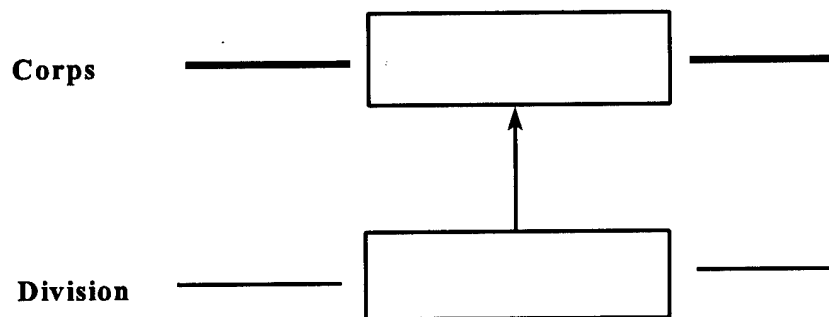


Figure 1. Division input to corps.

Figure 2 illustrates a corps task providing input or otherwise supporting a division task.

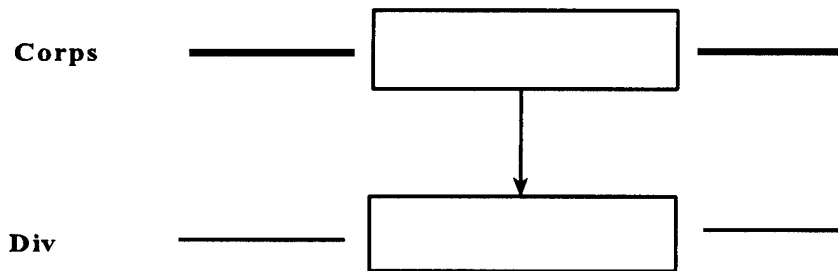


Figure 2. Corps input to division.

Figure 3 illustrates both division and corps tasks providing input or otherwise exchanging information which both tasks require.

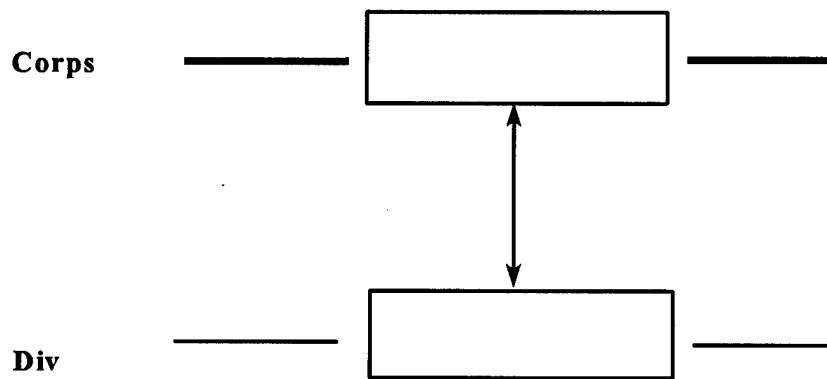


Figure 3. Division and corps exchanging information.

Lines with no arrowheads reflect an inter-relationship between two or more tasks.

The relevant Input and Output letters listed in the Key Inputs and Outputs component are listed on the outside of the upper right corner of the task box. This is illustrated in Figure 4. Each relevant task is depicted with input information which is required to perform the task and output information which is produced as a result of performing the task. Input and Output information is listed in the Key Inputs and Outputs component of the BF analysis.

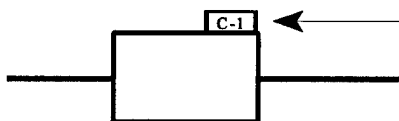


Figure 4. Key task inputs and outputs.

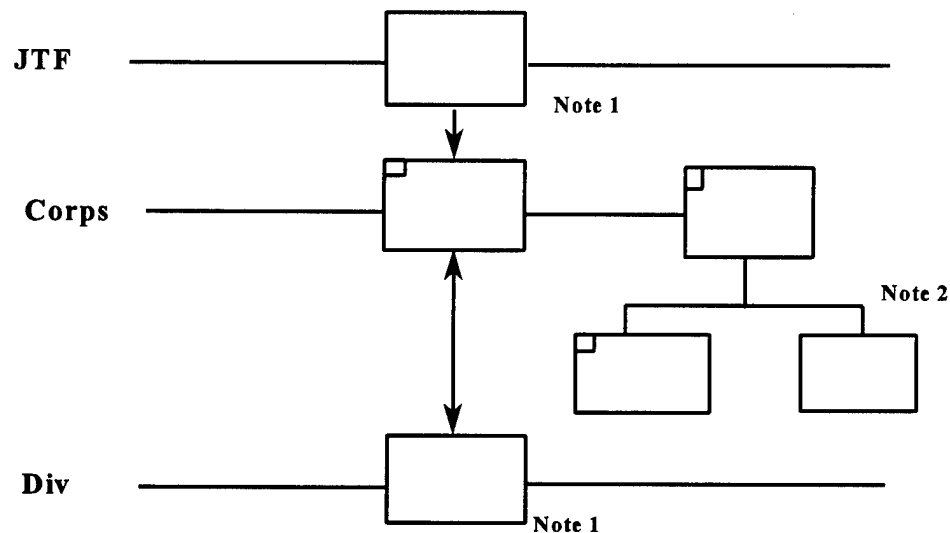


Figure 5. Task linkages to other BF's and units.

Note 1: Task linkage to other units

Note 2: Task linkage to other BF (same echelon)

Task linkages to other BF's/units are reflected on the flow charts. The task title is placed in a box without a task number. Tasks performed by other units (echelons), are shown on that unit's (echelon's) horizontal line. The task's relationship to the corps task is illustrated as described in Figures 1 through 3.

BFs which are linked to tasks are identified by their number, encircled and connected to the task by a line. This is illustrated in Figure 6 below.

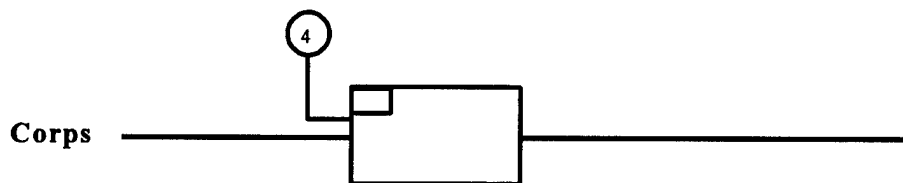
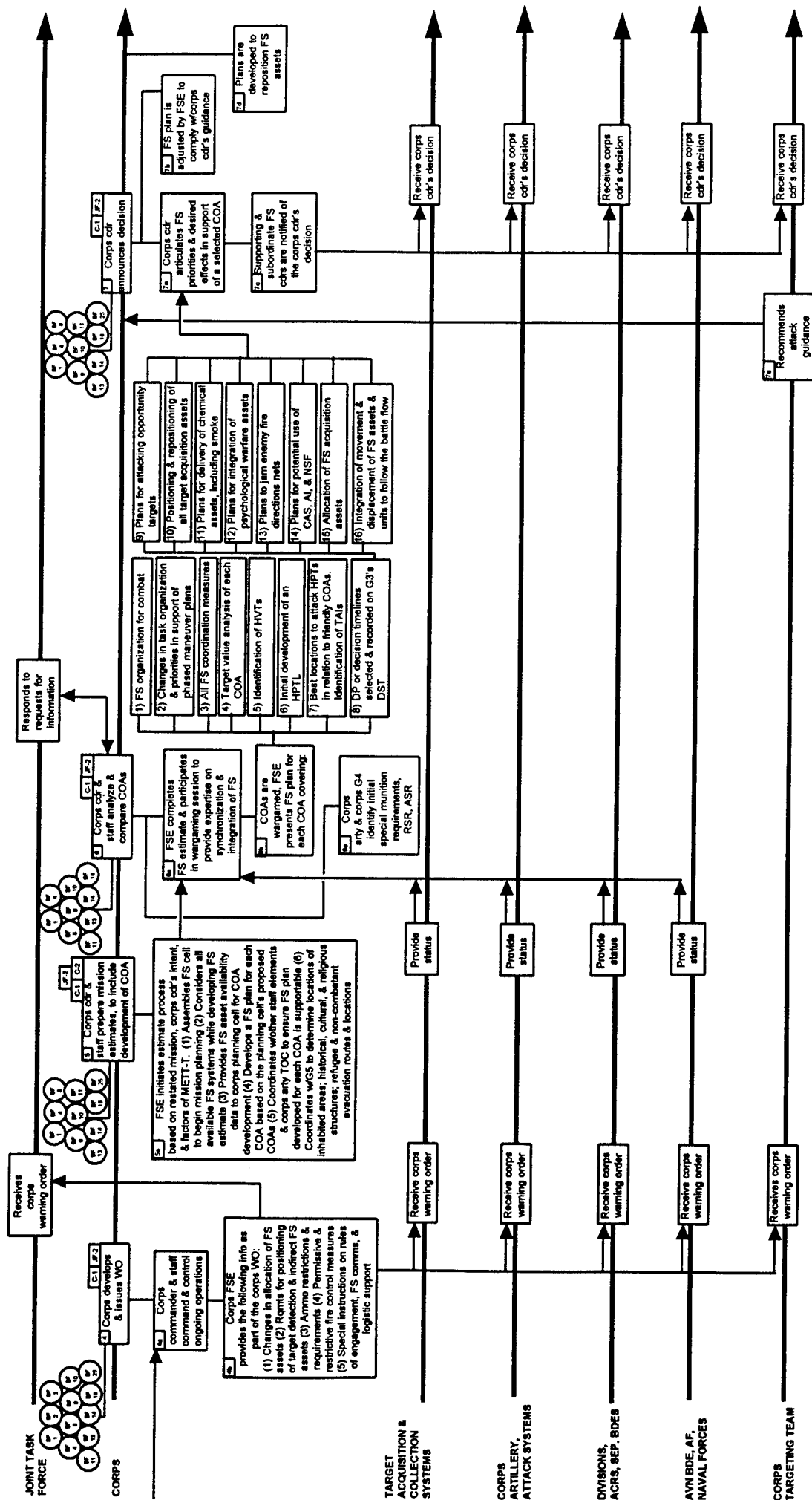


Figure 6. Other BF linkage to tasks.

Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



TASK FLOW PLAN

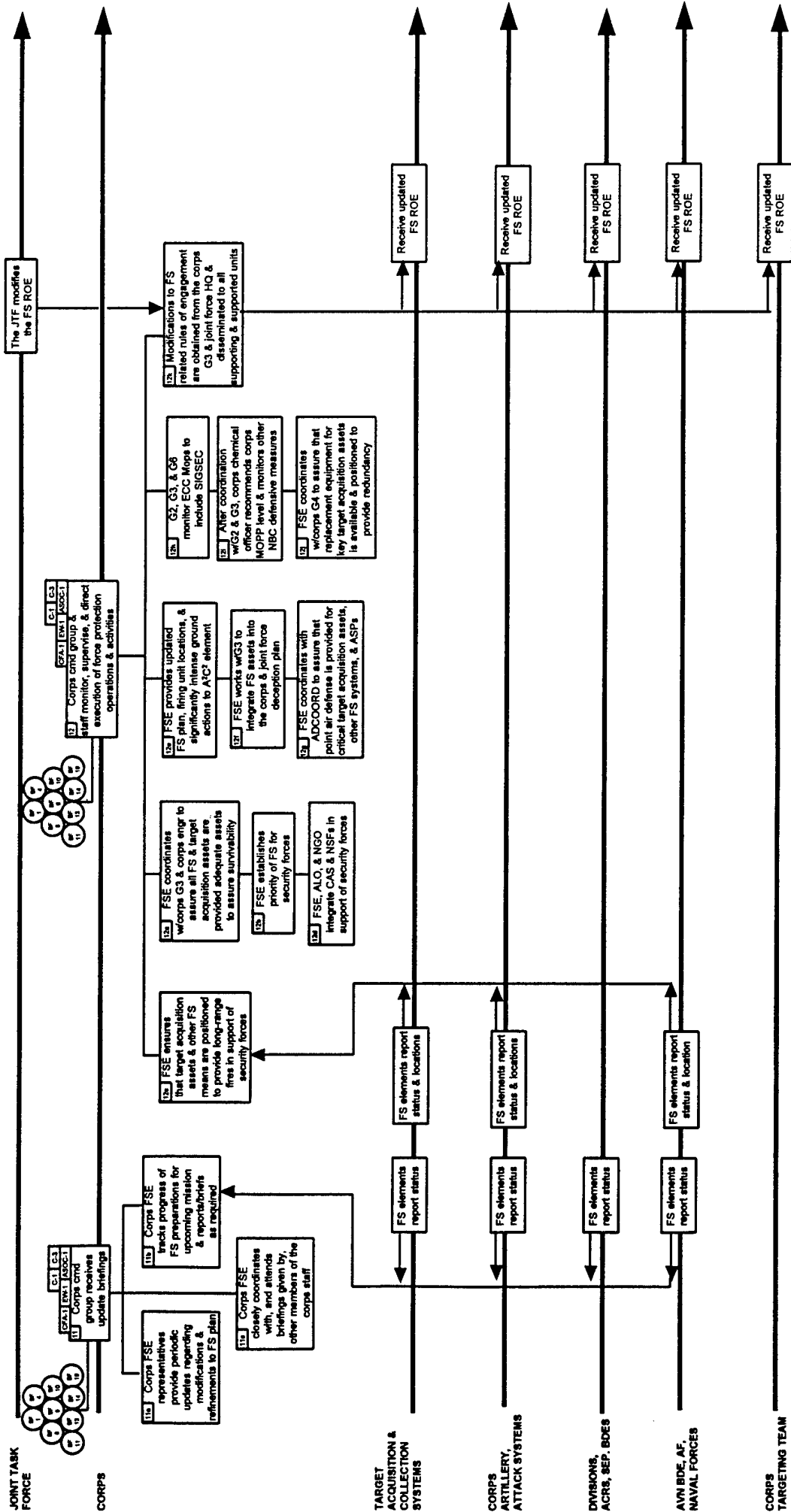


Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



TASK FLOW PREPARE

Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support

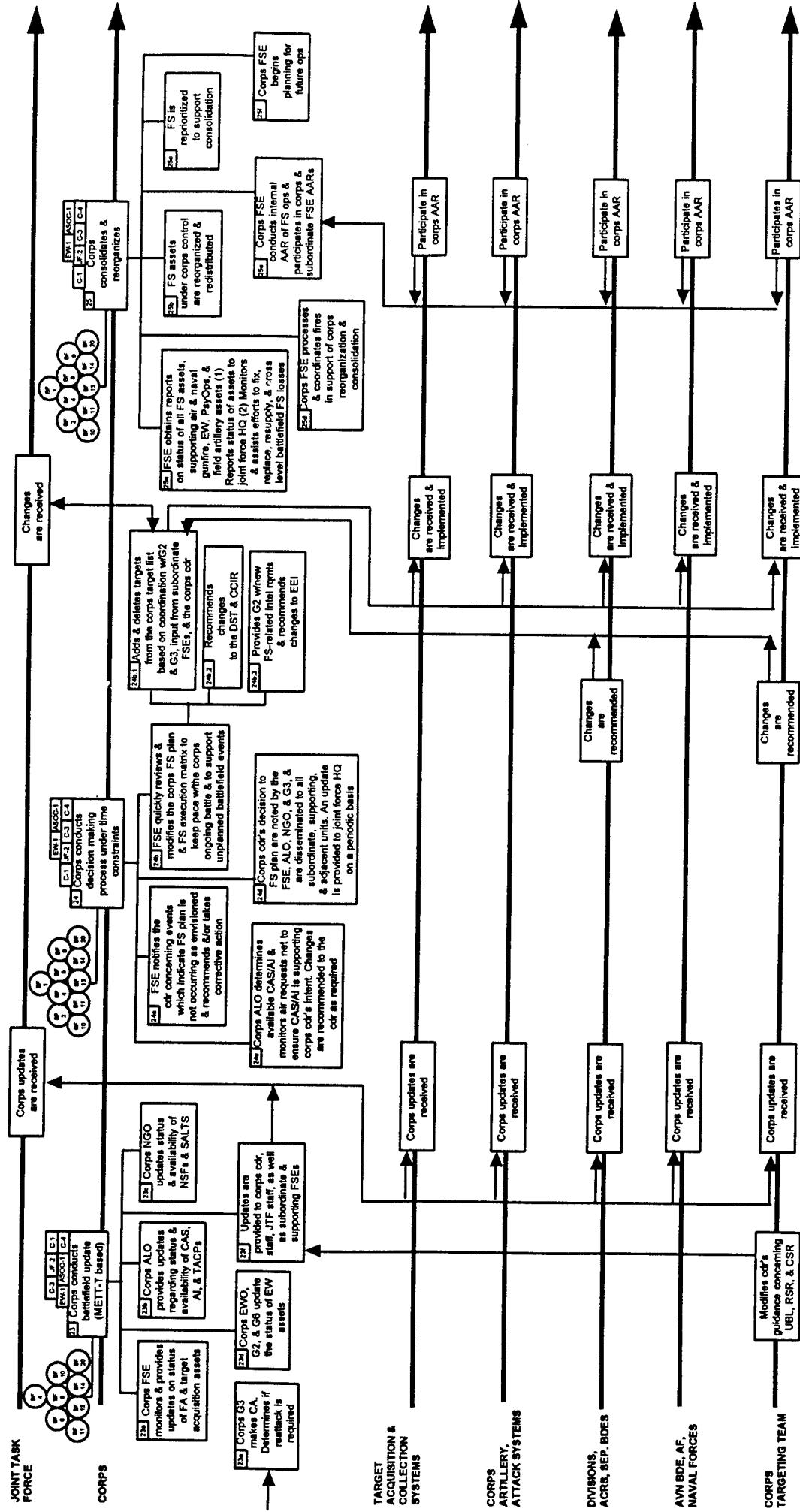


Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



TASK FLOW EXECUTE

Corps BF 15 - Coordinate, Synchronize, and Integrate Fire Support



Other BFs that Interact with BF 15

This component describes the linkage between this function and other BFs and units. The purpose of this component is to allow the trainer or training developer to incorporate related functions into a training exercise for this BF.

<u>BF</u>	<u>TITLE</u>	<u>LOGIC</u>
BF 1	Conduct Intelligence Planning	Fire support planners: a) identify high-value targets (HVTs) for each enemy COA; b) identify requirements to be incorporated into the corps collection plan and reconnaissance & surveillance plan and to be submitted to the joint force command (JFC) for inclusion in the joint integrated prioritized target list (JIPTL); c) recommend fire support related essential elements of information (EEI) to the G2; d) analyze the effects of terrain and weather on fire support operations.
BF 2	Collect Information	Acquisition of targeting information is the key to successful fire support at any level. Information collected on corps HPTs, other critical targets, and effects of all fires is immediately integrated into the targeting process to support target tracking.
BF 3	Process Information	Fire support planners are integrated into the information processing and intelligence systems to refine and modify the fire support plan. Information on corps HPTs and other critical targets is immediately processed and used to support target tracking. Information is used to compute target attack requirements.
BF 4	Disseminate Intelligence	The updated enemy situation is analyzed to modify and refine fire support plans and to provide responsive indirect fires as needed.

<u>BF</u>	<u>TITLE</u>	<u>LOGIC</u>
		Battlefield intelligence obtained by target acquisition assets is integrated into the ASAS.
BF 5	Conduct Tactical Movement	Supporting indirect fires are integrated and utilized to support corps movement; fire support assets are positioned.
BF 6	Engage Enemy with Direct Fire and Maneuver	Fire support assets (artillery, CAS, NSF, and EW attack helicopter units) are requested, coordinated, processed, and controlled to ensure integration and synchronization of fires with corps maneuver, and direct fires.
BF 8	Employ Field Artillery	Source of fire support to be integrated into the corps indirect fire plan and synchronized with maneuver, and direct fires.
BF 9	Employ Close Air Support	Source of fire support to be integrated and synchronized with other fire support systems, corps maneuver, and direct fires. Other sources of fire support, e.g., artillery and electronic jamming, are used to suppress or destroy enemy air defense artillery (SEAD).
BF 10	Conduct Electronic Collection and Attack	Source of non-lethal fire support to be integrated and synchronized with lethal fire support systems, corps maneuver, and direct fires.
BF 11	Conduct PSYOP	Non-lethal fire support that must be coordinated by the FSE in conjunction with lethal forms of fire support.
BF 13	Conduct Counter Target Acquisition Operations	Fire support assets are used to suppress, degrade, or destroy

<u>BF</u>	<u>TITLE</u>	<u>LOGIC</u>
		enemy target acquisition assets in support of corps maneuver and the counterfire and direct fire battles.
BF 14	Employ Naval Surface Fires	Source of fire support to be integrated into the corps indirect fire plan and synchronized with maneuver and direct fires.
BF 16	Take Active Air Defense Measures	Indirect fires and fire support assets are planned and positioned to bring fires against known or suspected enemy attack helicopters' firing positions. Air defense artillery assets are deployed to protect critical fire support elements. FSCoord, with the ADCoord, integrates offensive counter-air operations in the corps targeting process.
BF 17	Take Passive Air Defense Measures	Target acquisition and fire support assets are hidden, dispersed, moved, and hardened to protect them from enemy air.
BF 18	Plan for Combat Operations	All means of fire support are integrated and synchronized with the corps maneuver plan, direct fire plan, and the corps commander's intent.
BF 19	Direct and Lead Unit During Preparation for the Battle	Indirect fire support assets under corps control are positioned. Fire support plan is rehearsed. Fire support plan is modified and refined based on rehearsals, enemy situation, changes in availability of fire support assets, and changes in the maneuver and direct fire plans. Fire support assets are utilized to support security operations and other force protection measures. Class V is stocked and positioned.

<u>BF</u>	<u>TITLE</u>	<u>LOGIC</u>
BF 20	Direct and Lead Units in Execution of Battle	Lethal and non-lethal fire support assets and operations are integrated and synchronized with corps maneuver and direct fires during the conduct of the battle.
BF 21	Overcome Obstacles	Indirect fire support assets under corps control are used to provide indirect fires to obscure corps breaching activities, destroy obstacles, and attack enemy positions and forces securing obstacles.
BF 23	Provide Countermobility	Scatterable mines and munitions delivered by fire support assets are integrated into fire support planning, preparation, and execution. Corps engineer determines obstacle locations and requirements. Corps FSCOORD develops technical information required for emplacement of indirect fire delivered obstacles. Supporting fire support assets are positioned to process and control scatterable mines and munitions fires. Indirect fires are planned and delivered on enemy forces attempting to breach or bypass obstacles.
BF 24	Enhance Physical Security	Requirements to protect target acquisition and indirect fire systems are incorporated with planning, to include considerations for construction of protective positions. Mission-oriented protective posture (MOPP) and NBC monitoring operations are conducted to protect against enemy NBC attack on fire support units and assets.

<u>BF</u>	<u>TITLE</u>	<u>LOGIC</u>
BF 25	Provide Operations Security	Fire support assets under corps control are provided to support security operations. Fire support assets and activities are concealed to deny enemy information on friendly forces and intentions.
BF 26	Conduct Deception Operations	Artillery, CAS, and naval surface fire assets are incorporated into the planning for and the conduct of physical deception measures (e.g., demonstrations, feints). Electronic deception operations are conducted to mislead enemy concerning friendly plans and operations.
BF 28	Provide Transportation Services	Fire support units employ organic and supporting ground and air transportation assets to move personnel, equipment, and ammunition.
BF 29	Conduct Supply Operations	Supply operations to ensure continuous resupply of fire support assets (to include resupply of ammunition for corps and attached artillery elements) are conducted. The corps must establish and monitor restraints on supply consumption.
BF 30	Provide Personnel Services	It is necessary to project and fill shortages of fire support personnel and to provide other personnel services.
BF 31	Maintain Weapons Systems and Equipment	Preventive maintenance and repair/replace services must be performed on fire support, target acquisition, and mission-essential equipment.

<u>BF</u>	<u>TITLE</u>	<u>LOGIC</u>
BF 33	Treat and Evacuate Battlefield Casualties	It is necessary to plan, coordinate, and monitor the treatment and evacuation of fire support casualties which exceed organic capabilities.
BF 36	Conduct Civil Affairs Operations	The corps must avoid noncombatant casualties or significant collateral damage as a result of fire support operations.

Key Participants by Task

This component identifies the training audience for training events for the related tasks. It is based on the appropriate echelon/type unit table of organization and equipment (TO&E) and includes special staff (as per appropriate doctrinal reference) critical for the task accomplishment. The purpose of this component is to help commanders and trainers to identify the training audience required for a training event.

Tasks

Key Participants

Planning

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| 1. Direct and lead the corps during planning for battle. | Corps Cdr, Dep corps Cdr, chief of staff, G2, G3, G3 Air, G3 Plans, fire support coordinator (FSCoord), deputy FSCoord (DFSCoord), ALO, NGO, Avn officer, electronic warfare Off (EWO), engineer, subordinate cdrs [Divs, Corps Arty, corps support command (COSCOM)], Sep Bdes, and subordinate G3/S3s and fire support officers (FSOs). |
| 2. Corps receives joint force OPORD/FRAGO. | Corps Cdr, chief of staff, G2, G3, G4, and FSCoord. |
| 3. Corps commander and staff conduct mission analysis. | Corps Cdr, Dep corps Cdr, chief of staff, G2, G3, FSCoord, DFSCoord, ALO, NGO, Avn officer, EWO, Eng, air defense coordinator (ADCOORD), G1, G4, G5, G6, and Chem officer. |
| 4. Corps develops and issues warning order. | Corps Cdr, Dep corps Cdr, chief of staff, G2, G3, G3 Air, G3 Plans, FSCoord, DFSCoord, ALO, NGO, Eng, Avn officer, EWO, subordinate cdrs (Divs, corps Arty, COSCOM, Sep Bdes), and subordinate S3s/G3s and FSOs. |
| 5. Corps and staff prepares mission estimate, to include development of courses of action. | Corps Cdr, Dep corps Cdr, chief of staff, G1, G2, G3, G4, G5, G6, FSCoord, DFSCoord, ALO, NGO, EWO, Eng, Avn officer, ADCoord, Chem officer, and subordinate FSEs. |

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| 6. | Corps commander and staff analyze and compare courses of action. | Corps Cdr, Dep corps Cdr, chief of staff, G1, G2, G3, G4, G5, G6, FSCoord, DFSCoord, ALO, NGO, Avn officer, EWO, Engineer, ADCoord, Chem officer, and subordinate FSEs. |
| 7. | Corps commander announces decision. | Corps Cdr, Dep corps Cdr, chief of staff, G1, G2, G3, G3 Plans, G4, G5, G6, FSCoord, ALO, NGO, EWO, engineer, ADCoord, and Chem officer. |
| 8. | Corps staff prepares corps OPORD/FRAGO. | Corps Cdr, chief of staff, G1, G2, G3, G3 Plans, G4, G5, G6, FSCoord, DFSCoord, ALO, NGO, Avn officer, EWO, Chem officer, ADCoord, engineer, and subordinate FSEs. |
| 9. | Corps commander and staff issue the corps OPORD/FRAGO. | Corps Cdr, Dep corps Cdr, chief of staff, staff, FSCoord, DFSCoord, ALO, NGO, subordinate cdrs (Divs, corps Arty, COSCOM, Sep Bdes), G3/S3s, and FSOs. |
| 10. | Corps commander and staff refine the plan. | Corps Cdr, Dep corps Cdr, chief of staff, corps staff, FSCoord, ALO and NGO. |

Preparation

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| 11. | Corps command group receives update briefings. | Corps Cdr, Dep corps Cdr, chief of staff, corps staff, FSCoord, ALO, NGO, Avn officer, EWO, engineer, ADCoord, Chem officer, and subordinate cdrs, G3/S3s, and FSOs. |
| 12. | Corps command group and staff monitor, supervise, and direct execution of force protection operations and activities. | Corps Cdr, Dep corps Cdr, chief of staff, G3, G2, G4, FSCoord, Avn officer, engineer, ADCoord, Chem officer, EWO, COSCOM Cdr, MP Bde Cdr, MI Bde Cdr. |
| 13. | Corps command group and staff monitor, supervise, and direct corps mission preparation. | Corps Cdr, Dep corps Cdr, chief of staff, G3, G4, FSCoord, DFSCoord, ALO, NGO, engineer, ADCoord, subordinate maneuver cdrs, corps Arty Cdr, COSCOM Cdr, and MI Bde Cdr. |

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| 14. Corps commander and staff integrate fire support planning with the joint targeting and execution process. | Corps Cdr, Dep corps Cdr, chief of staff, G3, G2, FSCOORD, DFSCOORD, ALO, NGO, Avn officer, ground liaison off (GLO), battlefield coordination element (BCE), and special operations coordinator (SOCOORD). |
| 15. Corps commander and staff conduct visits and inspections to subordinate units. | Corps Cdr, Dep corps Cdr, chief of staff, G3, G2, G4, G1, FSCOORD, Avn officer, EWO, ALO, NGO, and subordinate cdrs, G3/S3s, and FSOs. |
| 16. Corps commander, corps staff, and subordinate commanders conduct rehearsals. | Corps Cdr, Dep corps Cdr, chief of staff, corps staff, all subordinate and supporting commanders, G3/S3s and FSOs, ALO, NGO, BCE, and SOCOORD. |
| 17. Corps plan is further modified and refined. | Corps Cdr, chief of staff, G2, G3, G3 Plans, G4, G6, FSCOORD, DFSCOORD, ALO, NGO, Avn officer, EWO, engineer, ADCOORD, Chemical officer, and subordinate FSEs. |
| 18. Corps conducts liaison and coordination with higher, adjacent, supported, and supporting elements. | Corps chief of staff, G3, G2, FSCOORD, ALO, NGO, Avn officer, BCE, EWO, corps LNOs, and SOCOORD. |

Execution

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| 19. Corps command group and command posts (CPs) are positioned to support and control the battle. | Corps Cdr, Dep corps Cdr, chief of staff, G3, G3 Ops, G6, FSCOORD, ALO, NGO, Avn officer, and ADCOORD. |
| 20. Corps commander sees the battlefield. | Corps Cdr, chief of staff, G2, G3, G5, engineer, FSCOORD, DFSCOORD, EWO, ALO, NGO, SOCOORD, Avn officer, corps cavalry regiment, corps Arty, MI Bde, divisions, and Reconnaissance, Surveillance, and Target Acquisition (RSTA) assets. |
| 21. Corps commander directs and leads the execution phase. | Corps Cdr, Dep Corp Cdr, chief of staff, G1, G2, G3, G4, G5, G6, FSCOORD, ALO, NGO, Avn officer, EWO, ADCOORD, and subordinate cdrs and staffs. |

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| 22. Corps command posts track and support the battle. | Corps Cdr, Dep corps Cdr, chief of staff, corps staff, FSCOORD, DFSCOORD, ALO, NGO, Avn officer, ADCOORD, EWO, SOCOORD, engineer, and subordinate CPs and FSEs. |
| 23. Corps conducts battlefield update (METT-T based). | Corps Cdr, Dep corps Cdr, chief of staff, corps staff, FSCOORD, ALO, NGO, and subordinate cdrs, staffs and FSOs. |
| 24. Corps conducts decision making process under time constraints. | Corps Cdr, chief of staff, G3, G2, FSCOORD, ALO, NGO, Avn officer, and EWO. |
| 25. Corps consolidates and reorganizes. | Corps Cdr, Dep corps Cdr, chief of staff, corps staff, ALO, NGO, FSCOORD, Avn officer, EWO, engineer, corps surgeon, and subordinate cdrs and staffs. |

Key Inputs and Outputs to BF 15

This component identifies critical input information required by participants to successfully accomplish the BF. Where information results from the performance of the BF tasks, BF information output will be identified. One BF's information output normally is provided as another BF's input. Critical input and output information is organized by the specific part of the doctrinal product or means used to communicate it. The source of critical information identified is specific only to the BF echelon and function being analyzed and is not intended to reflect all the information the product may contain. The purpose of this component is to identify information required to drive a training exercise for this BF and to establish standards for measuring the performance of BF tasks resulting in information output.

KEY INPUTS

C-1 CORPS TACTICAL STANDING OPERATING PROCEDURES (TSOP)

- a. Pre-combat checklists.
- b. Composition of corps:
 - 1) Current operations cell.
 - 2) Plans cell.
 - 3) Fire support cell.
 - 4) Intelligence cell.
 - 5) A2C2 cell.
 - 6) Targeting team.
- c. FSE responsibilities, duties, and operations.
- d. NBC procedures.
- e. Targeting team composition, operations and responsibilities.
- f. Deep operation coordination cell (DOCC) composition, operations, and responsibilities.
- g. Battlefield unit identification procedures.
- h. Schedule for routine briefings and meetings.
- i. Requirements and format for submitting fire support requests and reports.

C-2 CORPS WARNO

JF-1 JOINT FORCE WARNO

JF-2 JOINT FORCE OPORD

- a. Joint force commander's intent and guidance for fire support.
- b. Fire support plan from paragraph 3 (Execution) of OPORD.
- c. Maneuver plan from paragraph 3 (Execution) of OPORD.
- d. IEW from paragraph 3 (Execution) of the OPORD.
- e. Joint force maneuver graphics/operations overlay.
- f. Joint force fire support annex.

- 1) Priority of fires.
- 2) Joint integrated prioritized target list.
- 3) Joint targeting coordination board (JTCB) procedures.
- 4) Fire support execution matrix.
- 5) High-payoff target list.
- 6) Attack guidance matrix.
- 7) Target selection criteria.
- 8) Fire support coordination measures and restrictions on use of fires.
- 9) Target acquisition plan.
- 10) Proposed apportionment of CAS/AI.
- 11) Naval surface fires support plan.
- 12) Sensor/attack matrix.
- 13) ROE.
- g. Joint force intelligence annex.
 - 1) Primary intelligence requirements (PIR).
 - 2) Aerial photo and map support.
- j. Joint force EW annex.
 - 1) Joint force EW plan.
 - 2) Allocation of joint force EW assets.

CFA-1 CORPS FIELD ARTILLERY SUPPORT PLAN

- a. Organization for combat.
- b. Corps artillery positioning and movement plan.
- c. Target acquisition.
- d. Fire plan (target lists, schedules of fires).
- e. Rules of engagement (ROE)
- f. A2C2 overlay.
- g. Met.
- h. IFSAS, AFATDS, and TACFIRE (as appropriate).

EW-1 MI BRIGADE OPLAN

- a. Organization for combat.
- b. Positioning of EW assets.
- c. EW targets.
 - 1) Monitor and locate.
 - 2) Jam.

ASOC-1 AIR TASKING ORDER (ATO)

- a. Air apportionment.
- b. Organization for combat.
- c. Targets lists.
- d. Availability of air force (AF) assets.

- e. Weaponneering.
- f. JSEAD operations.
- g. JAAT operations.
- h. AI.
- i. Battlefield damage assessment (BDA) plans.

KEY OUTPUTS

C-3 CORPS OPORD

- a. Corps commander's intent and guidance for fire support.
- b. Fire support plan, paragraph 3 (Execution) of OPORD.
- c. Maneuver plan, paragraph 3 (Execution) of OPORD.
- d. Tasks to subordinate units, paragraph 3 (Execution) of OPORD.
- d. IEW, paragraph 3 (Execution) of OPORD.
- e. Corps maneuver graphics/operations overlay.
- f. Fire support annex
 - 1) Target list.
 - 2) Schedule of fires.
 - 3) Priorities of fires.
 - 4) Fire support coordination measures/restrictions.
 - 5) Coordinating instructions.
 - 6) Artillery task organization by phase.
 - 7) High-payoff target list (HPTL).
 - 8) Attack guidance matrix (AGM).
 - 9) Target selection standards.
 - 10) Target acquisition plan.
 - 11) Army aviation fire support.
 - 12) CAS support plan.
 - 13) EW support plan.
 - 14) Naval surface fires support plan.
 - 15) Allocation of ammunition.
 - 16) Air interdiction.
 - 17) Corps field artillery support plan.
- g. Decision support template and the synchronization (DST-Synch) matrix.
- h. Advanced Field Artillery Tactical Data System (AFATDS).
- i. Forward Area Air Defense Command, Control, Communications, and Intelligence (FAADC3I) system.
- j. Engineer annex.
 - 1) Prioritization of obstacles.
 - 2) Joint force directed obstacles.
 - 3) FA FASCAM, engineer Volcano, and USAF Gator mine fields.
 - 4) Responsibility for emplaced obstacles.
 - 5) Situational obstacles.

- 6) Plan for breaching obstacles.
- k. Aviation annex.
 - 1) Attack helicopter operations in support of corps maneuver (deep and close operations).
 - 2) Assault and cargo helicopter (medium lift) operations in support of the corps fire support plan.
 - 3) Observation helicopter operations in support of corps fire support.
 - 4) Fire support in support of aviation operations:
 - a) JSEAD requirements (i.e., FA, CAS, AI, EW, AD).
 - b) Artillery.
 - c) CAS (JAAT).
 - 5) Flight operations.
 - 6) Tasks to Army aviation units.
- m. Intelligence annex.
 - 1) RSTA.
 - 2) NAIs and TAIs.
 - 3) Intelligence operations/activities in support of the fire support plan.
 - 4) Corps collection plan.
 - 5) Commander's critical information requirements (CCIR).
- n. Air defense artillery annex.
 - 1) JSEAD requirements.
 - 2) CAS integration.
- o. Logistics annex.
 - 1) Main supply routes (MSR).
 - 2) Ammunition supply point (ASP) locations.
 - 3) Ammunition supply rates (ASR).
- p. Army airspace command and control (A2C2) annex.
 - 1) Rules of engagement (ROE).
 - 2) Coordinating altitudes.
 - 3) Flight routes and corridors.
- q. Civil affairs (CA) annex.
 - 1) Collateral damage preclusion.
 - 2) ROE or rules of confrontation for civilians.

C-4 MODIFIED/REFINED CORPS FIRE SUPPORT PLAN

- a. Updated corps fire support plan.
 - 1) Priority of fire support.
 - 2) Target list.
 - 3) Artillery task organization.
 - 4) EW task organization.
 - 5) Air support.
 - 6) Field artillery support.
 - 7) Naval surface fires support.
 - 8) Offensive EW.

- 9) Army aviation fire support.
- 10) High-payoff target list.
- 11) Attack guidance matrix.
- 12) Target selection standards.
- 13) Schedule of fires.
- 14) Fire support coordination measures /restrictions.
- b. Updated DST-SYNCH matrix.
- c. Updated FASCAM / Gator plan.
- d. Updated target acquisition positioning plan.
- e. Updated EW positioning.
- f. Updated CAS and NSF support plan.
- g. Updated ROE.

Task List Summary

This component provides a summary of the tasks.

PLANNING

1. **Direct and lead the corps during planning for battle.** (FM 5-33, Introduction & Chap 1; FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 34-130, Chap 1; FM 100-5, Chap 6; FM 100-15, Chap 4; FM 101-5, Chap 1; Joint Pub 3-09, Chap 2; Universal Joint Task List, TA 3.1; TRADOC Pamphlet (Pam) 11-9, Chap 7)
2. **Corps receives joint force OPORD/FRAGO.** (FM 6-20, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; Universal Joint Task List, TA 3; TRADOC Pam 11-9, Chap 7)
3. **Corps conducts mission analysis; corps commander issues initial guidance.** (FM 6-20, Chap 2; FM 6-20, Chap 3; FM 101-5, Chap 4; TRADOC Pam 11-9, Chap 7; Universal Joint Task List, TA .3)
4. **Corps develops and issues warning order.** (FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4)
5. **Corps commander and staff prepare mission estimate to include development of courses of action.** (FM 6-20, Chap 3; FM 34-3, Chap 4; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 6-300-1, Task 3-111-9-1a; ARTEP 100-15-MTP, Task 878-8-3013)
6. **Corps commander and staff analyze and compare courses of action.** (FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 6-300-1, Task 3-111-9-2)
7. **Corps commander announces decision.** (FM 6-20-10, Chap 2; FM 100-15, Chap 4, FM 101-5, Chap 4)
8. **Corps staff prepares corps OPORD/FRAGO.** (FM 6-20, Chap 3 & Appendix C; FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 6-100-1, Task 111-9-7; ARTEP 100-15-MTP, Task 878-8-3014)
9. **Corps commander and staff issue the OPORD/FRAGO.** (FM 6-20-10, Chap 4; FM 100-15, Chap 4; FM 101-5, Chap 4 & Appendix H; ARTEP 100-15-MTP, Task 006-8-FS04)
10. **Corps commander and staff refine the plan.** (FM 6-20, Chap 3; FM 6-20-10, Chap 3; FM 101-5, Chap 4; FM 101-5, Chap 4 & Appendix H)

PREPARATION

11. **Corps command group receives update briefings.** (FM 6-20, Chap 1; FM 100-15, Chap 4; FM 101-5, Chap 3; ARTEP 100-15-MTP, Task 006-8-FS07)
12. **Corps command group and staff monitor, supervise, and direct execution of force protection operations and activities.** (FM 6-20, Chap 1; FM 34-10, Chap 1; FM 90-14, Chap 4; FM 100-15, Appendix D; TRADOC Pam 11-9, Chap 6)
13. **Corps command group and staff monitor, supervise, and direct corps mission preparation.** (FM 6-20, Chap 3; FM 6-20-10, Chap 4, Appendices C & E; FM 100-15, Chap 4; FM 101-5, Chap 3; ARTEP 100-15-MTP, Task 006-8-FS04)
14. **Corps commander and staff integrate fire support planning with the joint targeting and execution process.** (FM 6-20-10, Chap 3; Joint Pub 3-109, Chap 2)
15. **Corps commander and staff conduct visits and inspections to subordinate units.** (FM 100-15, Chap 4; FM 101-5, Chap 4; TRADOC Pam 11-9, Appendix D; Universal Joint Task List, TA 3.4.4)
16. **Corps commander, corps staff, and subordinate commanders conduct rehearsals.** (FM 6-20, Chap 1; FM 100-5, Chap 1, 5 & 6; FM 101-5, Appendix M; ARTEP 100-15-MTP, Task 878-8-3022; Universal Joint Task List, TA 3.4.4)
17. **Corps plan is further modified and refined.** (FM 101-5, Chap 4 & Appendix M; Universal Joint Task List, TA 3.3.4; TRADOC Pam 11-9, Chap 7)
18. **Corps conducts liaison and coordination with higher, adjacent, supported, and supporting elements.** (FM 6-20-10, Chap 3 & 4; FM 100-5, Chap 2; FM 101-5, Appendix L; ARTEP 100-15-MTP, Tasks 022-8-CS02, 022-8-LO01)

EXECUTION

19. **Corps command group and command posts are positioned to support and control the battle.** (FM 6-20, Chap 2; FM 90-14, Chap 8; FM 100-15, Appendix C; FM 101-5, Chap 5; ARTEP 100-15-MTP, Task 022-8-CG01, 022-8-CS01, 022-8-RC03, 878-87-3005, 878-8-3010, 878-8-3012, 878-8-3017, 878-8-3032, 878-8-3036, 878-8-3042, 878-8-3045, 006-8-FS05, 006-8-FS06, Joint Pub 3-09, Chap IV)
20. **Corps commander sees the battlefield.** FM 5-33, Introduction; FM 6-20, Chap 3; FM 34-130, Chap 2; FM 100-5, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 1; ARTEP 100-15-MTP, Tasks 022-8-CG01)

21. **Corps commander directs and leads the execution phase.** (FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 100-5, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 100-15-MTP, Tasks 022-8-CG04, 006-83FS08; Joint Pub 3-09, Chap IV; TRADOC Pam 11-9, Chap 7)
22. **Corps command posts track and support the battle.** (FM 6-20, Chap 3; FM 101-5, Chap 5, 6, & 7; ARTEP 100-15-MTP, Tasks 006-8-FS04, 006-8-FS06, 878-83022, 022-8-CG04; TRADOC Pam 11-9, Chap 7)
23. **Corps conducts battlefield update (METT-T based).** (FM 6-20, Chap 3; FM 100-15, Chap 8; FM 101-5, Chap 6)
24. **Corps conducts the decision-making process under time constraints.** (FM 100-15, Chap 8; FM 101-5, Chap 4)
25. **Corps consolidates and reorganizes.** (FM 100-5, Chap 3, FM 100-15, Chap 4, 5, & 6)

Task List

The purpose of this component is to identify, organize, and list in logical sequence all of the tasks and subtasks necessary to perform this function. Normally, the primary participants responsible for performing the task are identified. The tasks were extracted from the appropriate doctrinal publications and sources. The specific sources of reference for each task and subtask are shown in brackets [] following the task.

In many instances, the wording of the task has been changed from the text found in the Army Training and Evaluation Program - Mission Training Plan (ARTEP-MTP) or field manual (FM) to add clarity, context, or meaning. The references allow the user to refer to the original source material for further detail and context, if desired.

For tasks derived from an FM, the FM number and page number have been provided as a reference. For example, the reference for a task, "The brigade commander demonstrates understanding of mission and higher commander's intent during confirmation briefing to the division commander," would be [FM 101-5, p. 1-9].

Full references for all the source material are listed in the reference section.

Planning Task List

1. **Direct and lead the corps during planning for battle.** (FM 5-33, Introduction & Chap 1; FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 34-130, Chap 1; FM 100-5, Chap 6; FM 100-15, Chap 4; FM 101-5, Chap 1; Joint Pub 3-09, Chap 2; Universal Joint Task List, TA 2; TRADOC Pam 11-9, Chap 7)
 - a. Corps commander and staff continue to command and control on-going operations to include force protection, deep, close, rear operations, and logistics.
 - b. Corps G3 receives joint force commander's warning order for a new mission.
 - 1) Corps G3 alerts corps staff, and subordinate and supporting units to include attachments.
 - 2) Corps G3 develops a tentative timeline for planning the new mission.
 - 3) Corps FSE alerts subordinate FSEs.
 - 4) Corps staff begins initial planning based on analysis of new mission.
 - a) Meeting of corps planning cell is scheduled for lower, supporting, and adjacent planners in order to begin parallel planning.

NOTE: The corps planning cell includes planners from G1 thru G6, FSE, others as identified by the corps tactical standing operating procedures (TACSOP), and representative planners from subordinate and supporting units. The corps planning cell functions as the targeting team during the planning and preparation phases of an operation. The cell identifies critical targets and events during the development of courses of action (COA) and wargaming. This "decide" function establishes priorities for detection and engagement and focuses the intelligence effort. The planning and preparation phase targeting team includes representatives from G2 and G3 plans, G3 Air, FSCoord, EW, ALO, naval gunfire officer (NGO), corps artillery command, corps MI brigade, and corps aviation brigade.

- b) Corps G2 orients intelligence preparation of the battlefield (IPB) on new mission; produces initial drafts of commander's critical information requirements (CCIR) and priority intelligence requirements (PIR).
- c) Corps terrain team begins obstacle and terrain analysis of projected area of operation.
- d) USAF weather team forecasts weather and makes initial projections regarding potential weather impact on operations.
- e) Corps fire support element updates and evaluates location and availability of all friendly fire support, offensive EW, PSYOP, and targeting systems to include joint assets. All are alerted to begin parallel planning.
 - (1) Corps targeting cell has initial planning meeting to identify targets in support of new mission.
 - (2) FSE determines availability of naval surface fire assets within the operational area and requests naval liaison as required.
 - (3) The corps electronic warfare officer (EWO), in conjunction with the corps analysis and control element (ACE) and the MI brigade, begins electronic preparation of the battlefield (EPB) and revision of the electronic collection plan.
 - (4) Availability of echelons above corps (EAC) collection assets is determined through communication with the EW staff at joint force headquarters.
 - (5) Corps aviation officer projects availability of corps aircraft at specified H-hour. Joint force aviation capability is also determined through contact with the joint force J3.
- c. FSE continues to coordinate and synchronize fire support for forces in contact.

- d. The air support operations center (ASOC), in conjunction with the battlefield coordination detachment (BCD), determines current apportionment of CAS and air interdiction assets from the air tasking order (ATO).
- 2. **Corps receives joint force OPORD/FRAGO.** (FM 6-20, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; Universal Joint Task List, TA 3; TRADOC Pam 11-9, Chap 7)
 - a. Corps commander and staff are fully briefed by G3 on new mission and are presented a proposed timeline for planning.
 - b. FSCoord identifies fire support and target acquisition assets available to the corps.
 - c. ALO reviews ATO and determines the current availability of air support assets.
 - d. The NGO determines the availability of naval surface fires from joint force operations order (Naval Surface Fires Annex).
 - e. EWO determines availability of EAC EW support from joint force operations order (EW Annex).
 - f. G2 identifies location and availability of all target acquisition assets controlled or monitored by G2 and intelligence community, including those at EAC.
- 3. **Corps conducts mission analysis; corps commander issues initial guidance.** (FM 6-20, Chap 2; FM 6-20, Chap 3; FM 101-5, Chap 4; TRADOC Pam 11-9, Chap 7; Universal Joint Task List, TA .3)
 - a. The corps command group and staff analyze the mission; all stated and implied tasks are identified.
 - b. Corps commander approves/adjusts timeline for planning and issues initial guidance.
 - 1) Restates mission based on analysis of stated and implied tasks.
 - 2) Gives initial statement of intent to include his vision of what must be accomplished to achieve the mission and the desired end state for the disposition and strength of the corps following mission accomplishment.
 - 3) Approves/adjusts CCIR and emphasizes force protection measures.
 - 4) Clearly states intent for the use of fires (to include priorities) and other non-lethal support assets and delineates how these assets support the maneuver concept.
 - c. Corps FSE continues support of on-going battle and begins fire support planning for new mission. Corps targeting team convenes.

- d. G2 initiates target value analysis (TVA) process; high-value targets (HVTs) are identified and prioritized for enemy COAs.
 - e. DSFSCOORD provides information about availability of all fire support assets (to include CAS, air interdiction, naval surface fires, electronic warfare, PSYOP, and Army aviation) to the corps G3.
4. **Corps develops and issues warning order.** (FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4)
- a. Corps warning order is developed by the corps G3, approved by the corps commander, and disseminated to all subordinate and supporting units.
 - b. The corps FSE provides the following information as a part of the corps warning order:
 - 1) Changes in allocation of fire support assets.
 - 2) Requirements for positioning of target detection and indirect fire support assets.
 - 3) Ammunition restrictions and requirements.
 - 4) Permissive and restrictive fire control measures.
 - 5) Special instructions on rules of engagement, fire support communications, and logistic support.
5. **Corps commander and staff prepare mission estimate, to include development of courses of action.** (FM 6-20, Chap 3; FM 34-3, Chap 4; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 6-300-1, Task 3-111-9-1a; ARTEP 100-15)
- a. FSE initiates estimate process based on restated mission, the corps commander's stated intent, and the factors of METT-T.
 - 1) Assembles fire support cell to begin mission planning.
 - 2) Considers all available fire support systems, to include target acquisition assets, when developing the fire support estimate.
 - 3) After determining and identifying the availability of all fire support assets, the FSE provides this data to the corps planning cell in order to assist in course of action development.
 - b. Upon receipt of proposed courses of action from corps planning cell, the FSE develops a fire support plan for each course of action which:

- (a) Supports the corps commander's intent for fires.
 - (b) Provides fire support for deep, close, and rear battle, to include counter fires.
 - c. FSE coordinates with other corps staff elements and corps artillery tactical operations center (TOC) to ensure that the fire support plan developed for each COA is supportable from their points of view.
 - d. FSE coordinates with the G5 to determine locations of inhabited areas, locations of significant historic, cultural, and religious structures, and movements of refugees and other non-combatants.
6. **Corps commander and staff analyze and compare courses of actions.** (FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 6-300-1, Task 3-111-9-2)
- a. FSE completes fire support estimate and participates in wargaming session to provide expertise on synchronization and integration of fire support.
 - b. As COAs are wargamed, the FSE presents the fire support plan for each which covers:
 - 1) Fire support organization for combat, to include distribution of assets to weight the main effort and the counter-fire battle.
 - 2) Changes in task organization and priorities in support of phased maneuver plans.
 - 3) All fire support coordinating measures (FSCMs), to include potential location of the fire support coordination line (FSCL).
 - 4) TVA of each course of action. Factors influencing such analysis include:
 - a) Impact on enemy operations and probable responses.
 - b) Criticality of each target as it relates to the success of the friendly mission.
 - 5) Identification of additional HVTs.
 - 6) Initial development of HPTL.
 - 7) The best locations to attack HPTs in relation to the friendly COAs, identified and expressed as targeted areas of interest (TAIs).
 - 8) Decision points (DPs) or decision timelines selected and recorded on the G3's decision support template (DST).

- 9) Plans for attacking opportunity targets.
 - 10) Positioning and repositioning of all target acquisition assets.
 - 11) Plans for delivery of chemical assets, to include smoke.
 - 12) Plans for the integration of psychological warfare assets.
 - 13) Plans to jam enemy fire direction nets.
 - 14) Plans for the potential use of CAS, air interdiction (AI), and naval surface fires.
 - 15) Allocation of fire support and acquisition assets to support deep, close, rear, and counter-fire battles.
 - 16) Integration of movement and displacement of fire support assets and units to follow the battle flow.
- c. FSE war-games, compares, and rates each course of action in terms of the ability of available fire support assets to support the maneuver plan.
- 1) Targets requiring outside acquisition or attack are nominated to the joint force headquarters.
 - 2) HPTs are developed from the wargaming process.
 - 3) HPTs that require battle damage assessment are identified and provided to the corps analysis and control element (ACE) in order for the G2 collection manager to identify and task sensors to conduct collection on nominated HPTs.
- d. FSCOORD chooses the course of action that is most supportable from a fire support perspective and briefs his recommended COA to the corps commander.
- e. Target team develops and recommends attack guidance to the commander. Attack guidance details:
- 1) Prioritized list of HPTs.
 - 2) Timing, method, and desired effects of attacks.
 - 3) Special instruction as required.
 - 4) HPTs that require BDA.

- f. Plans are developed for repositioning fire support assets to include target acquisition capabilities to support corps commander's intent for the deep, close, rear, and counter fire battles.
7. **Corps commander announces decision.** (FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4)
- a. Corps commander articulates fire support priorities (RSTA assets, interdiction, CAS, naval surface fires, artillery, EW, PSYOP) and desired effects of fires in support of selected COA.
 - b. Fire support plan is adjusted by the FSE to comply with the corps commander's guidance.
 - c. Supporting and subordinate fire support commanders are notified regarding corps commander's decision.
 - d. Coordination is conducted with corps artillery headquarters and corps G4 to identify initial special munition requirements, required supply rate (RSR), and ammunition supply rate (ASR) priorities to support new mission.
8. **Corps staff prepares corps OPORD/FRAGO.** (FM 6-20, Chap 3 & Appendix C; FM 6-20-10, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 6-300-1, Task 111-9-7; ARTEP 100-15)
- a. FSE finalizes fire support plan to include preparation of paragraph 3a(2) Fires and the fire support annex, complete with HPTL, target selection standards (TSS), attack guidance matrix (AGM), and overlays.
 - 1) In coordination with the corps G3, the FSE ensures that paragraph 3a(2) Fires includes the following:
 - (a) Outline of fire support plan, synchronization, and integration measures to support each phase of the battle.
 - (b) Designation of maneuver units which have priority of fires by phase.
- NOTE:** Priority of fires is given to the maneuver unit by phase based on the corps commander's assessment of where he wishes to conduct the main effort. Additionally, priority of fires could be given to a particular phase of the battle if the commander determined that maximum fires at that point was critical to the success of the corps mission.
- (c) Designation of priority of use of low-density munitions.
 - (d) Description of times, duration, and desired effects of supporting fires.

NOTE: Attack guidance is provided to attack system managers via the attack guidance matrix (AGM). The AGM consists of target categories, specific HPTs, times when targets should be attacked, how they should be attacked, and any restrictions.

- (e) Establishment of priority for requested joint air and naval surface fires support.
- 2) In coordination with the G3, ALO, NGO, chemical officer, and EWO, the FSE assures that the fire support annex (with accompanying appendices, target list matrices, and overlays) reflects:
 - (a) Enemy fire support capabilities, including artillery, air defense, Army aviation, tactical air, EW, naval gunfire, and NBC capabilities.
 - (b) Information regarding friendly forces mission and concept of fires, to include joint air and naval forces.
 - (c) All fire support resources assigned, attached, and supporting the corps.
 - (d) Fire support task organization, priorities, and concept for support.
 - (e) Positioning and utilization of all target acquisition assets. A sensor/attack matrix may be used in order to ensure that all HPTs are acquirable and that a fire support system is available to attack the target.
 - (f) Target lists and assignment to a fire support asset for engagement of each target.
 - (g) Instructions for attack of HPTs.
 - (h) Concept for use of joint air and naval surface fires.
 - (i) Plans for the counter-fire battle.
 - (j) Plans for joint air attack (JAAT) and joint suppression of enemy air defenses (JSEAD).
 - (k) Plans for offensive EW, PSYOP, and other non-lethal means of fire support.
 - (l) ASP locations and routes to and from.
 - (m) Controlled supply rate (CSR).
 - (n) Permissive and restrictive fire support coordination measures to include A2C2 and rules of engagement. Includes joint force approved FSCL.

- 3) FSE assures that the fire support plan is integrated into the corps decision support template (DST) and that where information about effects of fires is required, the corps collection plan relevant to BDA satisfies the requirement.
 - 4) G2 ensures that corps collection plan meets requirements for BDA.
9. **Corps commander and staff issue the OPOD/FRAGO.** (FM 6-20-10, Chap 4; FM 100-15, Chap 4; FM 101-5, Chap 4 & Appendix H; ARTEP 100-15-MTP, Task 006-8-FS04)
- a. The corps fire support coordinator briefs the corps fire support plan to the corps orders group.
 - 1) Fire support organization for combat.
 - 2) Priorities of fire during all phases.
 - 3) All fire control and coordination measures.
 - 4) Location, status, and mission of target acquisition assets.
 - 5) Use of preparatory fires.
 - 6) Naval surface fire support plan (NGO will assist in briefing if naval support is a significant factor).
 - 7) Munitions status and control measures (e.g., ASR/CSR).
 - b. Air liaison (ALO) briefs air support.
 - 1) Available resources and allocation to close air support with a description of the commander's intent for the use of CAS.
 - 2) Allocation of resources to AI with a description of joint force air component commander's (JFACC) intent for AI at the joint force level.
 - 3) Description of the concept for use of aircraft in support of electronic combat operations.
 - 4) Air munitions availability.
 - 5) Description of JAAT plans.
 - 6) Description of JSEAD requirements.
 - 7) Discussion of essential A²C² measures.

- 8) Rules of engagement and potential impact on mission.
 - c. Chemical officer briefs the concept for the use of smoke and prescribes priorities for decontamination and chemical reconnaissance.
 - d. Corps G6 briefs the concept for using EW (jamming) in close and deep operations.
 - e. Subordinate commanders brief-back their understanding of the fire support plan and pose questions and issues for refinement.
 - f. The corps G3 ensures that necessary information from the fire support plan, (e.g., HPTL, attack guidance matrix (AGM), and FCSMs), is integrated into the corps decision support template (DST).
10. **Corps commander and staff refine the plan.** (FM 6-20, Chap 3; FM 6-20-10, Chap 3; FM 101-5, Chap 4 and Appendix H)
- a. After subordinate unit input, the fire support plan is refined and improved by the FSE to accommodate subordinate unit requirements.
 - b. Fire support plan and target lists are modified and refined by the FSE as new intelligence is received regarding enemy locations and intentions.
 - c. Redundant plans are developed by the FSE to assure that all high priority targets can be attacked if primary acquisition or engagement means are unavailable or rendered unusable.
 - d. Force protection measures are developed by the G3 for all key acquisition and engagement assets.
 - e. Logistics requirements are updated by the G4 in accordance with subordinate and supporting commanders' needs.
 - f. Corps deep battle fire support requirements are updated and coordinated with latest deep battle plans. The corps deep operations coordination center (DOCC) assures integration of organic, supporting, and joint fires in support of JSEAD and the attack of deep targets.
 - g. Attacks of HPTs are refined by the FSE to ensure that they are engaged by the appropriate fire support asset.
 - h. The FSE ensures that all fire support plans, firing locations, and significant intensities of planned fires are provided to and coordinated with the A²C² element.
 - i. Plans for support of the rear battle are refined by the FSE to include allocation of fire support assets to the tactical combat force (TCF).

- j. FSE refines communication and retrans requirements with the G6 in order to ensure effective and redundant fire support nets.
- k. The corps HPTL and other targets that are beyond the corps' capability to engage are submitted through the BCD and NGO to the JFACC and the naval component commander, while duplicate copies are concurrently sent to the joint targeting coordination board (JTCB).
- l. The G3 ensures that changes and refinements to the plan are continuously disseminated to higher, lower, adjacent, and supporting commands.
- m. The corps FSE continues to coordinate, synchronize, and integrate fires in support of on-going corps operations.

Preparation Task List

- 11. **Corps command group receives update briefings.** (FM 6-20, Chap 1; FM 100-15, Chap 4; FM 101-5, Chap 3; ARTEP 100-15-MTP, Task 006-8-FS07)
 - a. Corps FSE representatives provide periodic updates regarding modifications and refinements to the fire support plan.
 - b. Corps FSE tracks the progress of fire support preparations for upcoming mission and reports/briefs as required:
 - 1) Changes to artillery organization for combat.
 - 2) Changes in available fire support and modification of assigned missions.
 - 3) Current location and status of all artillery and target acquisition assets.
 - 4) Artillery ammunition status.
 - 5) Current ASP locations and any planned changes thereto.
 - 6) Changes to CAS and AI allocations.
 - 7) Location and availability of naval surface fires.
 - 8) Refinements to JAAT plans and any changes to JSEAD requirements.
 - 9) Changes to plans for the use of EW assets.
 - 10) Changes to fire support coordination measures.

- 11) Projected changes to any of the above within the next 72 hours.
- c. The corps FSE closely coordinates with and attends briefings given by other members of the corps staff whose area of interest would affect the fire support plan (e.g., intelligence, logistics, and personnel updates).
12. **Corps command group and staff monitor, supervise, and direct execution of force protection operations and activities.** (FM 6-20, Chap 1; FM 34-10, Chap 1; FM 90-14, Chap 4; FM 100-15, Appendix D; TRADOC Pam 11-9, Chap 6)
- a. FSE coordinates with corps G3 and corps engineer to assure that all fire support and target acquisition assets have been provided adequate assets to assure survivability and force protection.
- b. FSE establishes priority of fire support for security forces.
- c. FSE ensures that target acquisition assets and other fire support means are positioned to provide long-range fires in support of the security force.
- d. FSE, ALO, and NGO integrate CAS and naval surface fires in support of the security forces.
- e. FSE provides updated fire support plan, firing unit locations, and significantly intense ground actions to A²C² element.
- f. FSE works with the G3 to integrate fire support assets into the corps and joint force deception plan.
- g. FSE coordinates with the ADCOORD to assure that point air defense is provided for critical target acquisition assets, other fire support systems, and ASPs.
- h. G2, G3, and G6 monitor ECCM operations to include SIGSEC.
- i. After coordination with G2 and G3, the corps chemical officer recommends the corps MOPP level and monitors other NBC defensive measures.
- j. FSE coordinates with the corps G4 to assure that replacement equipment for key target acquisition assets is available and positioned to provide immediate redundancy.
- k. Modifications to fire support related rules of engagement are obtained from the corps G3 and the joint force headquarters and are disseminated to all supporting and supported units.

13. **Corps command group and staff monitor, supervise, and direct corps mission preparation.** (FM 6-20, Chap 3; FM 6-20-10, Chap 4, Appendices C & E; FM 100-15, Chap 4; FM 101-5, Chap 3; ARTEP 100-15, Task 006-8-FS04)
- a. The corps planning cell meets daily with targeting team members to validate/modify as required the corps list of HPT and attack guidance.
 - b. FSE monitors the status of fire support preparations:
 - 1) Status and preparation of corps artillery and other fire support assets to support the corps fire support plan.
 - 2) Availability of joint air and naval surface fires, electronic warfare assets, PSYOP capabilities, and Army aviation to support the fire support plan.
 - 3) Preparation and status of target acquisition units and assets.
 - 4) Changes to target list based on updated intelligence.
 - 5) Engineer activities:
 - (a) Barrier plans.
 - (b) Maintenance/preparation of lines of communication (LOC) and MSR.
 - (c) Preparation of alternate and supplementary firing locations.
 - (d) Supplementary survivability measures for critical target acquisition assets.
 - (e) FASCAM planning and preparation.
 - 6) Changes of location of friendly forces, refugees or other noncombatants.
 - 7) Weather updates.
 - c. Corps FSE monitors status of corps artillery and maneuver unit operational planning.
 - 1) Ensures that the corps fire support plan is refined to reflect changes to corps and subordinate unit maneuver plans.
 - 2) Ensures that subordinate unit fire support planning is integrated into the corps fire support plan.
 - 3) Adjusts fire support coordination measures as required to facilitate delivery of subordinate, adjacent, and joint fires.

- 4) Makes recommendation to joint force commander for shifts to the FSCL.
- 5) Monitors availability of joint fire support assets to support the deep battle.
- 6) Monitors the status of joint air and naval surface fire requests and availability of support. Monitors recommendations of the JTCB regarding corps targets.
- 7) Ensures that fire support aspects of CCIR are current.
- 8) Makes recommended changes to corps DST.

14. **Corps commander and staff integrate fire support planning with the joint targeting and execution process.** (FM 6-20-10, Chap 3; Joint Pub 3-09, Chap 2)

- a. Plan and execute detailed joint fire support operations with and for other components.

NOTE: Joint fire support operations may involve the coordinated use of intelligence, surface-to-surface rocket and missile artillery, Army aviation, US Air Force (USAF), special operations forces (SOF), and/or US Navy (USN) and US Marine Corps (USMC) assets to engage the enemy.

- b. Identify requirements and nominate targets to the JTCB that are outside the corps boundaries or that exceed the corps' capability to engage.

- 1) Target lists submitted provide a description, precise location at time of desired attack, target composition, desired effects, and rationale for engagement. [Requests for close air support are concurrently submitted through the BCE to the air component air operations center (AOC).]
- 2) Corps G2 and the FSE contribute to the joint target list development process by continually providing targets to the joint intelligence center (JIC) that reflect the result of the corps' operational planning.
- 3) After the JFC receives a recommendation from the JTCB, he makes decisions regarding targeting and apportionment and the corps' plans. Specific missions are directed for execution. [The corps must assure that targets on the ATO are validated through the BCE to the AOC prior to attack.]

- c. Establish maneuver control and fire support coordinating measures to facilitate component and joint operations.

- 1) Planned corps targets that are located beyond the FSCL must be coordinated with the AOC in order to minimize duplication of effort and avoid fratricide.

NOTE: Intense management and coordination must occur between the corps FSE, the DOCC, and the air component commander for JSEAD and JAAT operations.

- (a) Appropriate procedural controls methods must be established in order to resolve potential conflicts in airspace. These may include:
 - (1) Attack windows established based on expected time of attack following a trigger event and/or liftoff of aircraft.
 - (2) A restricted operations zone (ROZ) established around firing points and target grids.
 - (3) A corps ground liaison officer (GLO) placed aboard an airborne battlefield command and control center (ABCCC) to coordinate fires on planned or unplanned targets.
 - (4) Establishment of and changes to fires support control measures such as the FSCL and airspace control measures such as low level transit routes (LLTR) are coordinated on a timely basis through the BCE with the air operations center.
- (b) The DOCC integrates corps deep operations functions with other joint agencies in order to provide near real-time information exchange and expedited command and control.
- d. Identify combat assessment requirements that exceed organic capabilities and coordinate their coverage with the Joint Force J3.
- e. Ensure attendance at specific meetings sponsored by the JFC, such as the JTCB, so that corps input can be provided regarding targeting and apportionment recommendations.
- f. After the JFC decision regarding targeting and apportionment is made, the corps validates and provides updates to the ATO.
- 15. **Corps commander and staff conduct visits and inspections to subordinate units.** (FM 100-15, Chap 4; FM 101-5, Chap 4; TRADOC Pam 11-9, Appendix D; Universal Joint Task List, TA 3.4.4)
 - a. Corps commander, G2, G3, FSCoord, ALO, aviation officer, EWO, and NGO visit subordinate maneuver commands, the corps aviation brigade, and corps artillery in order to monitor mission preparation and to ensure accurate dissemination, enhance understanding, and assess adequacy of the fire support plan, as well as other aspects of the corps plan. Back-briefs of subordinate unit plans are arranged as required.

- b. FSE visits joint force headquarters in order to monitor the status of joint fire support and to receive/provide updates on requests for joint fire support.

NOTE: The FSE may represent corps at scheduled meetings of the JTCB.

- c. Corps ALO and NGO visit their respective service supporting headquarters to ensure understanding of the corps ground tactical plan.

16. **Corps commander, corps staff, and subordinate commanders conduct rehearsals.** (FM 6-20, Chap 1; FM 100-5, Chap 2, 5 & 6; FM 101-5, Appendix M; ARTEP 100-15-MTP, Task 878-8-3022; Universal Joint Task List, TA3.4.4;)

NOTE: Rehearsals are always conducted, but can range from a full rehearsal to a terrain model, map, or radio back-briefs.

- a. Fire support plan is rehearsed simultaneously with the maneuver plan in order to ensure appropriate synchronization. Includes CAS, naval surface fires, Army aviation fire support, PSYOP, and EW.

NOTE: Detailed rehearsal of JAAT and JSEAD operations is an absolute necessity.

- b. Rehearsal addresses fire support for deep, close, rear, and counter fire battles.
- c. Rehearsal covers acquisition, observation, timing, and attack of HPTs. Backup systems should participate in the rehearsal.
- d. Rehearsal includes the positioning and displacement plan for all fire support and target acquisition assets.
- e. Rehearsal includes provisions for tracking and reporting damage to targets so as to contribute to battle damage assessment (BDA).
- f. Rehearsal includes measures to prevent fratricide, nonessential collateral damage, and noncombatant casualties. These include fire support coordination measures, rules of engagement, A²C², and identification, friend or foe (IFF) procedures.
- g. Logistics support is rehearsed, to include ground and air movement, resupply procedures, and timing.
- h. Communication plan is rehearsed, to include positioning and utilization of retrans sites.

17. **Corps plan is further modified and refined.** (FM 101-5, Chap 4 & Appendix M; Universal Joint Task List, TA 3.3.4; TRADOC Pam 11-9, Chap 7)

- a. Required changes revealed by the corps rehearsals are integrated into the fire support plan.
- b. Additional input from higher, lower, or adjacent fire support planners are also incorporated into the corps fire support plan.
- c. Potential movement or terrain management conflicts that were discovered during rehearsals are resolved.
- d. FSE disseminates all refinements to higher, lower, supporting, and adjacent fire support planners.

18. **Corps conducts liaison and coordination with higher, adjacent, supported, and supporting elements.** (FM 6-20-10, Chap 3 & 4; FM 100-5, Chap 2; FM 101-5, Appendix L; ARTEP 100-15-MTP, Tasks 022-8-CS02, 022-8-LO01)

- a. FSE ensures that corps liaison officers (LNOs) are knowledgeable and current on all aspects of the corps fire support plan. LNOs from other headquarters are updated.
- b. FSE ensures that fire support coordination measures are established with adjacent and supporting units (including other services) in order to enhance flexibility and eliminate fratricide.
- c. FSE coordinates procedures and targets to reinforce fire support across boundaries when required.
- d. Corps LNOs provide debriefs on fire support matters after visits to other headquarters.
- e. Corps ALO and NGO provide continuous updates for the corps commander, FSE, and other members of the corps staff regarding air and naval gunfire matters.
- f. The corps commander provides recommendations to the joint force commander regarding shifts to the FSCL location.

Execution Task List

19. **Corps command group and command posts are positioned to support and control the battle.** (FM 6-20, Chap 2; FM 90-14, Chap 8; FM 100-15, Appendix C; FM 101-5, Chap 5; ARTEP 100-15-MTP, Tasks 022-8-CG01, 022-8-CS01, 022-8-RC03, 878-8-3005, 878-8-3010, 878-8-3012, 878-8-3017, 878-8-3032, 878-8-3036, 878-8-3042, 878-8-3045, 006-8-FS05, 006-8-FS06, Joint Pub 3-09, Chap IV)

- a. Corps main command post is centrally located in order to best control all corps operations and normally operates under the control of the corps chief of staff.

- 1) FSE normally operates as a component of the main command post:
 - (a) Provides fire support command and control for corps tactical, main, and rear command posts in support of deep, close, and rear operations.
 - (b) Maintains communications with all fire support elements.
 - (c) Maintains status of fire support assets and continually refines fire support plans while providing updates to commander and staff.
 - (d) Allocates fire support resources to close, deep, and rear operations; recommends priorities; plans fire support for future operations; coordinates, integrates, and synchronizes available fire support assets to support current and future operations.

NOTE: ALO and NGO normally operate from within the corps FSE at the main command post except when required to displace with the corps command group. The BCE operates as a part of the AOC, which is normally collocated with the air component commander's headquarters.

- b. Corps tactical command post (TAC) is located well forward where it can best control corps units in contact; it normally operates under the control of the corps G3.

Note: During the early stages of the battle, the corps TAC may be just to the rear of the corps covering force or advance guard.

- 1) An element of the corps FSE will operate from the corps TAC and normally will include air liaison and naval gunfire liaison personnel.
 - 2) The FSE at the corps TAC will respond to and coordinate fire support requirements of units in the corps security force and those committed to the close operation.
- c. Corps rear command post, with accompanying rear area operations center (RAOC), is located in the corps rear area where it can best control the corps service support units and other uncommitted forces within the corps area of operations. The corps rear is normally controlled by the corps deputy commander.
 - 1) A small FSE is located in the RAOC in order to respond to and coordinate fire support requirements for units located in or moving through the Corps rear area.
 - 2) Detailed coordination is made by the corps RAOC with the fire support elements of tactical units located in the corps rear in order to assure the availability of their artillery assets for the rear battle.

- 3) The FSE must ensure that the tactical combat force (TCF) that is dispatched to the rear battle is task organized and has the necessary communications capability to provide or coordinate the necessary fire support.
- 4) The FSE ensures that the base defense liaison team (BDLT) provides a fire support plan for the base clusters (which are its responsibility) to the TCF that is tasked to respond to Level III incursions within specific areas of responsibility.
- 5) The FSE in coordination with the aviation office (Avn Off) will plan to use attack helicopters (when available) as fire support platforms for base clusters and military police as they respond to Levels I and II threats. Other aviation assets will be integrated into the rear battle plan in order to assist with observer missions and required repositioning of artillery.
- 6) The ALO, located with the RAOC, will coordinate with Air Force assets (air bases) located in the corps rear and assure that their air base ground defense forces are thoroughly integrated into the corps base defense plan.
- 7) CAS aircraft and special operations aircraft are planned for use against rear area threat.

20. **Corps commander sees the battlefield.** (FM 5-33, Introduction; FM 6-20, Chap 3; FM 34-130, Chap 2; FM 100-5, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 1; ARTEP 100-15-MTP, Task 022-8-CG01)

- a. The corps G2 and the corps terrain team provide and constantly update information to the corps commander and the FSE regarding the military aspects of the terrain as it relates to fire support; e.g., elevation, soil density, vegetation, and masking.
- b. The corps G2 and FSE provide latest information regarding potential targets of opportunity, as well as enemy vulnerabilities to indirect fires, and air-delivered munitions. This will include the status and location of enemy fire support assets and their vulnerability to counter fires.
- c. The corps G2 requests damage assessments as required and recommends re-targeting as appropriate.
- d. The FSE requests information about munitions effects and recommends re-targeting as appropriate.
- e. The FSE continually updates and provides the corps commander with the location, disposition, status, and capability of all corps assigned, attached, and supporting fire support assets.

- f. The FSE also updates the corps commander regarding the potential availability of additional fire support assets from the joint force headquarters. (Current status of JTCB targeting and apportionment deliberations is provided.)
 - g. The FSE, corps G2, and corps G3 continually provide updates to the corps commander regarding the location, status, and disposition of target acquisition assets and recommend changes as appropriate.
 - h. The corps commander changes or provides additional CCIR to the G3, who disseminates the CCIR to the FSE and other corps staff members as the battle progresses.
 - i. After considering the factors of METT-T, the corps commander adjusts his location on the battlefield in order to best control and influence fire support as well as other aspects of the battle.
21. **Corps commander directs and leads the execution phase.** (FM 6-20, Chap 3; FM 6-20-10, Chap 2; FM 100-5, Chap 2; FM 100-15, Chap 4; FM 101-5, Chap 4; ARTEP 100-15-MTP, Tasks 022-8-CG04, 006-8-FS08; Joint Pub 3-09, Chap VI; TRADOC Pam 11-9, Chap 7)
- a. Corps commander directs action as appropriate based on his judgement of the situation resulting from what he sees and the reports he receives.
 - b. FSE provides responses for new fire support related CCIRs.
 - c. FSE monitors execution of the fire support matrix and the employment of fire support IAW the DST.
 - d. FSE processes fire support requests on targets of opportunity within the context of the fire support execution matrix, the commander's intent, and the corps scheme of maneuver. In coordination with the G2 BDA process, the FSE identifies those targets not destroyed IAW stated destruction criteria and re-targets as appropriate.
 - e. As changes occur on the battlefield, the FSE anticipates other fire support requirements by:
 - 1) Understanding the commander's intent.
 - 2) Remaining knowledgeable regarding battlefield events and the flow of the battle.
 - 3) Following and wargaming the corps battle through the use of templates.
 - 3) Monitoring the overall joint force battle and coordinating closely with the joint force staff.
 - 4) Continuing the IPB process in coordination with the corps G2.

- e. FSE assures validation of allocated air sorties for the ATO.
 - f. FSE recommends priority/mission/task changes to the corps commander based on anticipated requirements.
 - 1) In the event that the DST and other decision aids (e.g., a fire support execution matrix) are determined to be invalid due to unanticipated enemy actions or other battlefield events, the FSE conducts accelerated fire support planning.
 - 2) Accelerated fire support planning is based on updated IPB and changes to the corps scheme of maneuver.
 - 3) New targets are incorporated into a modified or new fire support execution matrix in order to match targets to available weapons system.
22. **Corps command posts track and support the battle.** (FM 6-20, Chap 3; FM 101-5, Chap 5,6 & 7; ARTEP 100-15-MTP, Tasks 006-8-FS04, 006-8-FS06, 878-8-3022, 022-8-CG04; TRADOC Pam 11-9, Chap 7)
- a. The corps targeting cell coordinates with the TAC and rear CPs and synchronizes changes to the targeting effort as it is being executed.
 - b. FSE processes and coordinates the attack of corps targets.
 - 1) Executes planned fires IAW the corps fire support execution matrix and the DST.
 - 2) Continually coordinates with the G2, G3, ALO, NGO, EWO, corps aviation officer, corps artillery TOC, subordinate FSEs, the corps TAC and rear FSEs and the jointforce FSE to ensure that fire support is available throughout the corps area of operations and adequately supports the deep, close, and rear battles.
 - 3) Evaluates fire support requests in light of other requirements and fire support resources available. Provides, denies, or substitutes other fire support means within the scope of the FSE delegated authority.
 - 4) Coordinates attack of targets of opportunity identified by corps, joint force, and supporting target acquisition assets; e.g., unmanned aerial vehicles (UAV), long range surveillance units (LRSU), sensors, radars, and joint surveillance and target attack radar systems (JSTARS).
 - 5) Processes and coordinates delivery of interdiction fires.
 - 6) Processes and coordinates JSEAD and JAAT missions.
 - 7) Monitors immediate CAS and naval surface fire requests.

- 8) Ensures that all A²C² elements are kept current on fire support operations.
 - 9) Monitors the availability and employment of special munitions (e.g., FASCAM, Search and Destroy Armor Munitions (SADARM), smoke, illumination), as outlined in the fire support plan and the fire support execution matrix.
- c. FSE ensures that fires are synchronized and integrated with corps scheme of maneuver by:
- 1) Performing target analyses.
 - 2) Coordinating with corps G3 and subordinate FSEs to integrate fires with maneuver.
 - 3) Coordinating with corps G3, corps artillery, corps ALO, NGO, and the corps aviation officer in order to assure integration of CAS, AI, and naval surface fires into the fight and synchronize their delivery with artillery fires, electronic warfare, and Army aviation attack operations.
 - 4) Coordinating the timing and duration of offensive electronic warfare (e.g., jamming) to support attacks by lethal systems and corps maneuver.
- d. FSE continues to track the battle flow through:
- 1) Spot reports (SPOTREPS) and situation reports (SITREPS).
 - 2) Interstaff coordination.
 - 3) Monitoring communications channels.
 - 4) Reports of effects of fires.
- e. FSE, in coordination with the corps G2, compares reported effects of fires with desired effects of the fires. If results are not consistent with the corps commander's intent, the FSE makes appropriate re-targeting recommendations to the corps G3.
- f. FSE conducts clearance of fires for fire support assets in order to avoid fratricide and attack of civilian population centers and other non-military targets.
- g. ALO and NGO remain abreast of ground tactical situation and inform supporting USAF TACC and USN combat information centers (CIC).
- h. Corps artillery tactical operation center supports command and control of the corps fire support by:

- 1) Controlling the delivery of organic and supporting artillery fires in support of the corps scheme of maneuver and fire support plan.
 - 2) Controlling counter battery radar operations.
 - 3) Positioning organic target acquisition assets to support the fire support plan and the DST.
- i. Corps aviation TOC:
- 1) Provides deep battle attack, target acquisition, fire control, and battle damage assessment using aviation assets.
 - 2) Supports the implementation of the fire support execution matrix with scout and attack helicopters and aerial observers.
 - 3) Provides for ammunition resupply to corps fire support assets which could not be provided in a timely manner by ground transportation.
- j. Corps military intelligence brigade TOC controls organic and attached IEW assets in support of target acquisition and offensive EW.
- 1) LRSUs, sensors, and communications locating and intercept assets are positioned and supported IAW the corps fire support execution matrix.
 - 2) Offensive EW assets (jammers) are tasked and integrated with the corps fire support plan.
23. **Corps conducts battlefield update (METT-T based).** (FM 6-20, Chap 3; FM 100-15, Chap 8; FM 101-5, Chap 6; FM 6-20-10, Chap 2)
- a. Corps FSE monitors and provides updates on the status of field artillery and target acquisition assets to include type and quantity of ammunition available.
 - b. Targeting team develops munition effects assessments (MEA) and analyzes BDA. Makes recommendations for reattack as appropriate concerning:
 - 1) Methodology.
 - 2) Tactics.
 - 3) Weapon systems.
 - 4) Munitions.

- 5) Weapon delivery parameters.
 - c. Corps G3 appraises effects of fire employment and develops combat assessments (CAs).
 - d. Corps ALO provides updates regarding status and availability of CAS, AI, and tactical air control parties (TACPs).
 - e. Corps NGO updates status and availability of naval surface fires and supporting arms liaison teams (SALTs).
 - f. The corps electronic warfare officer (EWO), G2, and G6 update the status of electronic warfare assets.
 - g. Updates include:
 - 1) Success or failure of previously executed fire support and recommendations for re-attack.
 - 2) Planned displacement of target acquisition and fire support assets, accompanied by an appraisal of their potential impact on the availability of fire support for the corps battle.
 - 3) Modification of commander's guidance to G4 concerning:
 - a) Unit basic load (UBL).
 - b) RSR.
 - c) CSR.
 - h. Update is provided to the corps commander, corps staff, and joint force staff, as well as subordinate and supporting FSEs, in order to assure that the fire support network maintains a current picture of the corps battle.
24. **Corps conducts the decision making process under time constraints.** (FM 100-15, Chap 8; FM 101-5, Chap 4)
- a. Understanding the corps commander's intent, the FSE immediately notifies him concerning events which indicate the fire support plan execution is not occurring as envisioned and recommends and/or takes corrective actions.
 - b. FSE quickly reviews and modifies the corps fire support plan and other decision aids (e.g., FSEM for appropriate missions) to keep pace with the corps ongoing battle and to support unplanned battlefield events.

- 1) Adds and deletes targets from the corps target list based on coordination with G2 and G3 operations, recommendations from the targeting team, input from subordinate FSEs, and the corps commander's guidance.
 - 2) Recommends changes to the DST and CCIR.
 - 3) Provides the G2 with new fire support related intelligence requirements and recommends changes to essential elements of information (EEI).
- c. Corps ALO determines available CAS/AI and monitors air request net to ensure that fratricide and attack of non-military targets are avoided and that CAS/AI is supporting the corps commander's intent. Changes are recommended to the commander as required.
 - d. The corps commander's decisions regarding changes to the fire support plan are noted by the FSE, ALO, NGO, and G3 and are disseminated to all subordinate, supporting, and adjacent units. An update is also provided to the joint force headquarters on a periodic basis.
25. **Corps consolidates and reorganizes.** (FM 100-5, Chap 3; FM 100-15, Chap 4, 5, & 6)
- a. FSE obtains reports on status of all fire support assets to include target acquisition, supporting air and naval gunfire, EW, PSYOP, and field artillery assets.
 - 1) Reports status of assets to the joint force headquarters.
 - 2) Monitors and assists efforts to fix, replace, resupply, and cross level battlefield fire support losses.
 - b. Fire support assets under corps control are reorganized and redistributed.
 - c. Fire support is reprioritized to support consolidation.
 - d. Corps FSE processes and coordinates fires in support of the corps reorganization and consolidation.
 - e. Corps FSE conducts internal after action review (AAR) of fire support operations and participates in corps and subordinate FSE AARs.
 - f. Corps FSE begins planning for future operations.

BF Assessment Package

Trainers should use the “assessment package” to assist in measuring a corps’ ability to perform BF 15, Coordinate, Synchronize, and Integrate Fire Support. The main purpose of the package is to support training assessment through the organization of observations matched to measures of effectiveness and performance. This supports development of meaningful feedback to a corps commander, staff, and personnel. The assessment package is organized into a logical format for conducting AARs as follows.

Overall Assessment: A “macro” assessment is made of the corps’ ability to perform BF 15, emphasizing any superior performance. This puts the “bottom line” up front in the AAR for the assessed unit.

Asset Utilization: Seven tables based on measures of effectiveness and performance are used to capture how well assets are utilized given the commander’s intent for deep, close, and rear battles.

Use of Corps Fire Support Components: Tables 1-3 provide a measurement of whether or not targeting assets and weapons were used according to the commander’s intent during the planning phase, preparation phase, and execution phase of the counterfire, deep, close, and rear battles. The counterfire battle is singled out in recognition of its importance to overall mission success. This information also provides indications to trainers of problems in the development of the commander’s intent.

Acquisition of Targets and Execution of Fires: Tables 4-7 provide a measurement of the corps’ effectiveness in acquiring and engaging HPTs for the deep, close, and rear battles. This data enables trainers to provide feedback about acquisition planning and the execution process. The tables are formatted for ease of use by the corps’ personnel who can take this information, assess proficiencies, and pinpoint training issues.

Measures of Performance (Key Missions): A series of criteria scales provide a measurement of how well the corps accomplished key fire support tasks for the deep, close, and rear battles. These are subjective measurements based on the judgement of expert trainers and are used to bring out key points for discussion during AARs.

Assessment Strategy: Four charts describe the four BF 15 outcomes and suggest where trainers should focus their observations (what to look for) and the locations where key activities can be observed (where to look). This component of the assessment package may also assist planning for major exercises since the focus of observer/trainers required is indicated.

Outcome Assessment: Assessment scales for each of the four outcomes required to accomplish the purpose of BF 15 are provided for trainers to use in giving feedback on how

well the corps performed each outcome, its components, and the associated BF 15 task elements within each component. These scales display key BF 15 tasks in an easy to understand format and in a logical AAR presentation format. Each outcome assessment is followed by a “process” section which provides more detail about the tasks enabling the outcome. These supporting tasks anchor the assessment to the task analysis. This detail allows trainers to provide precise diagnostic feedback and facilitates extracting information for the development of training to remediate the unit’s demonstrated needs.

MISSION _____

DATE _____

UNIT _____

BF 15 - COORDINATE, SYNCHRONIZE, AND INTEGRATE FIRE SUPPORT AS PERFORMED BY A CORPS

OVERALL ASSESSMENT

Purpose

The coordination, synchronization and integration of targeting assets, field artillery, armed aircraft, naval surface fires, electronic countermeasures and other lethal and non-lethal means against ground targets in support of corps operations.

Did the corps achieve the purpose? (Circle one:) Yes No

If the performance exceeded the standard, please describe any techniques that the corps used to achieve superior performance. These are techniques that you think should be cited in the corps AAR and, perhaps, relayed through lessons learned agencies to be shared with the rest of the Army:

ASSET UTILIZATION

The first three tables concern the effectiveness of targeting assets and weapons for each battle phase by type of battle. For each asset, indicate whether each component was used according to the commander's intent during deep, close, and rear battles.

Table 1. Use of Corps Fire Support Components: **Planning Phase**

	Counterfire Battle			Deep		Close		Rear	
Targeting Assets									
Aerial									
- Utility Aircraft	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Special Electronic Mission Aircraft (SEMA)	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Observation and Utility Helicopters	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Unmanned Aerial Vehicles (UAVs)	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Joint Surveillance and Target Attack Radar System (JSTARS)	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Ground Observers	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Combat Electronic Warfare and Intelligence (CEWI)	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Artillery Radar	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Other	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Weapons									
Close Air Support (CAS)	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Air Interdiction (AI)	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A

	Counterfire Battle			Deep		Close		Rear	
Field Artillery	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Cannon	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Rocket	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Missiles	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Naval Surface Fires	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Armed Helicopters	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Electronic Warfare	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Other:	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A

Table 2. Use of Corps Fire Support Components: Preparation Phase

	Counterfire Battle			Deep		Close		Rear	
Targeting Assets									
Aerial									
- Utility Aircraft	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- SEMA	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Observation and Utility Helicopters	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- UAVs	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- JSTARS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Ground Observers	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- CEWI	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Artillery Radar	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Other	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Weapons									
CAS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
AI	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Field Artillery	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Cannon	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Rocket	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Missiles	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Naval Surface Fires	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Armed Helicopters	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Electronic Warfare	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Other:	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A

Table 3. Use of Corps Fire Support Components: Execution Phase

	Counterfire Battle			Deep		Close		Rear	
Targeting Assets									
Aerial									
- Utility Aircraft	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- SEMA	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Observation and Utility Helicopters	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- UAVs	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- JSTARS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Ground Observers	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- CEWI	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
- Artillery Radar	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Other	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Weapons									
CAS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
AI	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Field Artillery	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Cannon	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Rocket	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Missiles	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Naval Surface Fires	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Armed Helicopters	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Electronic Warfare	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
Other:	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A

ACQUISITION OF TARGETS AND EXECUTION OF FIRES

The next four tables concern acquisition of targets and execution of fires on HPTs for each type of battle. For each type of battle, list the HPTs identified. For each target, mark whether a system was assigned to acquire the target, whether a redundant system was assigned, and whether the target was acquired. Then mark the description of the commander's intent for each target: Neutralize, suppress, or destroy. Finally circle the result of the engagement. If the target was not acquired, or if it was acquired but not engaged, or if the fire had no effect, circle None.

Table 4. Acquisition of Targets and Execution of Fires: **Counterfire Battle.**

(Write in HPT identification)	Primary Acquisition System?	Redundant Acquisition System?	Was Target Acquired?	Commander's Intent	Effect of Fires
HPT 1:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 2:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 3:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 4:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 5:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 6:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 7:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 9:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 10:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 11:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None

Table 5. Acquisition of Targets and Execution of Fires: **Deep Battle**

(Write in HPT identification)	Primary Acquisition System?	Redundant Acquisition System?	Was Target Acquired?	Commander's Intent	Effect of Fires
HPT 1:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 2:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 3:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 4:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 5:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 6:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 7:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 9:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 10:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 11:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None

Table 6. Acquisition of Targets and Execution of Fires: **Close Battle**

(Write in HPT identification)	Primary Acquisition System?	Redundant Acquisition System?	Was Target Acquired?	Commander's Intent	Effect of Fires
HPT 1:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 2:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 3:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 4:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 5:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 6:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 7:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 9:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 10:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 11:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None

Table 7. Acquisition of Targets and Execution of Fires: **Rear Battle**

(Write in HPT identification)	Primary Acquisition System?	Redundant Acquisition System?	Was Target Acquired?	Commander's Intent	Effect of Fires
HPT 1:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 2:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 3:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 4:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 5:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 6:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 7:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 9:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 10:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None
HPT 11:	Yes No	Yes No	Yes No	Neut Sup Dest	Neut Sup Dest None

MEASURES OF PERFORMANCE

Rate how well the corps accomplished the following:

Counterfire Battle

1.	Fire support assets were immediately available to place fires on enemy fire support means as soon as they were identified.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
2.	Fires were planned to support the counterfire battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
3.	Fire support means were allocated to support the counterfire battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
4.	Fire support measures were adequate to enhance flexibility and avoid fratricide during the counterfire battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
5.	Acquisition means were identified and allocated to support the counterfire battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
6.	Fires supporting the counterfire battle were executed IAW corps commander's priorities and intent for fires.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
7.	Battle damage assessments for the counterfire battle were accurate and timely.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
8.	Retargeting was accomplished as required.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely

Deep Battle

1. Fires were planned to support the deep battle.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

2. Fire support means were allocated to support the deep battle.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

3. Fire support measures were adequate to enhance flexibility and avoid fratricide during the deep battle.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

4. Acquisition means were identified and allocated to support the deep battle.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

5. Fires supporting the deep battle were executed IAW corps commander's priorities and intent for fires.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

6. Battle damage assessments for the deep battle were accurate and timely.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

7. Retargeting was accomplished as required.

0	1	2	3	4
Not At All	Poorly	Somewhat	Sufficiently	Completely

Close Battle

1.	Fire support was immediately responsive to the forces in contact.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
2.	Fire support was synchronized with the scheme of maneuver.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
3.	Fire support measures were adequate to enhance flexibility and avoid fratricide during the close battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
4.	Acquisition means were identified and allocated to support the close battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
5.	Fires supporting the close battle were executed IAW corps commander's priorities and intent for fires.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
6.	Fire support was sustained throughout the close battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
7.	Battle damage assessments for the close battle were accurate and timely.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
8.	Retargeting was accomplished as required.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely

Rear Battle

1.	Designated fire support assets were available for rear area fire support.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
2.	Fires were planned for the rear area.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
3.	Observers were designated for rear area targets.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
4.	A fire support agency was designated to coordinate and execute fires in the rear.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
5.	Acquisition means were identified and allocated to support the rear battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
6.	Fire control measures were adequate to enhance flexibility and avoid fratricide during the rear battle.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
7.	Fires supporting the rear battle were executed IAW corps commander's priorities and intent for fires.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
8.	Battle damage assessments for the rear battle were accurate and timely.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely
9.	Retargeting was accomplished as required.	0	1	2	3	4
		Not At All	Poorly	Somewhat	Sufficiently	Completely

ASSESSMENT STRATEGY

OUTCOME	LOCATION AND FOCUS FOR ASSESSMENT
<p>Outcome I: Fire support plan effectively integrates all targeting means and indirect fire systems to support the corps scheme of maneuver, facilitate future operations and provide the commander flexibility to react to unexpected enemy actions.</p>	<ul style="list-style-type: none"> •During planning phase, with FSCCOORD, G3, and G2 to assess preparation of HPT matrix. •During planning phase, with corps staff to assess wargaming and COA development of fire support. •During planning phase, with FSCCOORD and FSE at the main CP to assess writing of Paragraph 3(a) of OPORD. •During planning phase, with G3, FSCCOORD, and FSE at corps main CP to assess overall planning of rear area fire support operations. •During planning phase, at main CP to determine whether OPORD contents reflect commander's intent and integration of fires as determined during wargaming and COA analysis. •At OPORD dissemination and operation briefings to observe changes suggested. •At corps rehearsals to observe integration measures and to record changes suggested. •During preparation phase, at main CP to observe integration of changes from rehearsals, bottom-up refinements, and operation briefings. •During execution phase, with FSCCOORD and FSE to monitor operations and to identify successes and problems with integration of targeting means and fire support systems.

OUTCOME	LOCATION AND FOCUS FOR ASSESSMENT
<p>Outcome II: All target acquisition assets are positioned to observe, process, and as appropriate, control indirect fire support missions on named areas of interest (NAIs), targeted areas of interest (TAIs), and preplanned targets.</p>	<ul style="list-style-type: none"> • At corps rehearsals to observe rehearsal of target acquisition assets. • During preparation and execution phases, with FSCoord to assess integration of target acquisition, survey, and support assets into plans of subordinate units. • At main CP to verify that positioning of acquisition assets are in accordance with the fire support plan. • During planning and execution phases, with FSCoord to assess communications status with target acquisition assets. • With target acquisition assets and the headquarters which control them to determine if their positions meet the corps commander's intent.
<p>Outcome III: The corps FSE coordinates continuously with all fire support assets in order to insure their fires are thoroughly integrated, synchronized and effectively delivered to support the corps scheme of maneuver and commander's intent.</p>	<ul style="list-style-type: none"> • With FSE to assess the following actions: <ul style="list-style-type: none"> --Dissemination of changes to higher, lower, adjacent, and joint fire support planners. --Monitoring of corps artillery and maneuver unit operational planning and status. --Synchronization of fires in accordance with commander's intent. --Targeting of HPTs, preplanned targets, NAIs, and TAIs. --Clearance of fires, monitoring of movement, adjustment of HPTs, and modifications to the plan. • With corps planning cell to verify they meet regularly (at least daily) with targeting team to select HPTs and develop attack guidance and target lists. • At main CP to assess liaison conducted with higher, adjacent, and supported and supporting elements. • With target acquisition assets, divisions' CPs, and OPFOR to determine effectiveness of fires. • With corps targeting team to determine effectiveness of fires and retargeting recommendations.

OUTCOME	LOCATION AND FOCUS FOR ASSESSMENT
<p>Outcome IV: Fires are delivered in such a manner that fratricide, collateral damage and noncombatant casualties do not occur.</p>	<ul style="list-style-type: none"> • With FSE to assess the following factors: <ul style="list-style-type: none"> --Fire control measures are included in the planning and issuing of the OPORD/FRAGO. --Ongoing coordination with subordinate and adjacent units regarding fire control measures. --Dissemination of ROE. • With ALO and NGO to assess dissemination of fire control measures and target changes to friendly elements. • With G5 to verify that built up areas and locations of noncombatants are identified. • With targeting team and subordinate headquarters to assess whether ROE are known and followed.

ASSESSMENT SCALE OVERVIEW

Whenever the unit's performance must be rated with respect to an outcome, or component of an outcome, the rating should be on the scale Adequate, Marginal, Not Adequate, defined below. Whenever these ratings are required, the outcome or component will be framed in a box with the rating scale, as in this example:

Component A: Corps fire support plan integrates target acquisition means with indirect fire systems to support the scheme of maneuver.	Adequate	Marginal	Not Adequate
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In each case, circle the appropriate rating, using the scale below for guidance:

Adequate	Marginal	Not Adequate
↓	↓	↓
The unit can successfully accomplish the outcome to standard. Outcome is accomplished with no significant shortcomings.	The unit can successfully accomplish the outcome with some shortcomings.	The unit cannot accomplish the outcome to standard.

OUTCOME ASSESSMENT

OUTCOME I: Fire support plan effectively integrates all targeting means and indirect fire systems to support the corps scheme of maneuver, facilitate future operations and provide the commander flexibility to react to unexpected enemy actions.

Assessment Statements

Component A: Corps fire support plan integrates target acquisition means with indirect fire systems to support the scheme of maneuver.	Adequate	Marginal	Not Adequate
---	----------	----------	--------------

- Fire support plan includes ground-based and air-based target acquisition systems from the following sources:
 - Units within the corps.
 - Assets at echelons above corps.
 - Adjacent units.
- Fire support plan joins target acquisition means to target delivery systems for all HPTs.

Component B: Fire support plan integrates indirect fires according to scheme of maneuver and commander's intent.	Adequate	Marginal	Not Adequate
---	----------	----------	--------------

- Paragraph 3a(2) Fires section of OPORD includes the following information:
 - Outline of fire support plan, synchronization, and integration measures to support each phase of the battle.
 - Designation of maneuver units which have priority of fires by phase.
 - Designation of priority of use of low-density munitions.
 - Description of times, duration and desired effects of supporting fires.
 - Establishment of priority for requested joint air and naval surface fires support.
- Fire support assets are allocated to weight the main effort by phase.
- Fire support plan is rehearsed simultaneously with the maneuver plan to ensure synchronization.

Component C: Fire support plan provides for flexibility.			
	Adequate	Marginal	Not Adequate

- Fire support plan includes the following information:
 - On order missions.
 - Controlled supply rates.
 - Task organizations and missions.
 - Command relationships (e.g., DS).
 - Fire support execution matrix.
 - Priorities for fires.
 - Permissive and restrictive fire control measures.

PROCESS

OUTCOME I: Fire support plan effectively integrates all targeting means and indirect fire systems to support the corps scheme of maneuver, facilitate future operations and provide the commander flexibility to react to unexpected enemy actions.

Task Elements

Component A: Corps fire support plan integrates target acquisition means with indirect fire systems to support the scheme of maneuver.

1b4e Availability of echelons above corps (EAC) collection assets is determined through communication with the EW staff at joint force headquarters.

2b FSCoord identifies fire support and target acquisition assets available to the corps.

5a FSE initiates estimate process based on restated mission, the corps commander's stated intent, and the factors of METT-T.

5a2 a) Considers all available fire support systems, to include target acquisition assets, when developing the fire support estimate.

6b As courses of action are wargamed, FSE presents fire support plan which covers allocation of fire support and acquisition assets to support deep, close, rear, and counter-fire battles.

8a2e In coordination with the G3, ALO, NGO, chemical officer, and EWO, the FSE assures that fire support annex (with accompanying appendices, target list matrices and overlays) reflects positioning and utilization of all target acquisition assets. A sensor/attack matrix may be used in order to ensure that all HPTs are acquirable and that a fire support system is available to attack the target.

Component B: Fire support plan integrates indirect fires according to scheme of maneuver and commander's intent.

6c FSE wargames, compares and rates each course of action in terms of the ability of available fire support assets to support the maneuver plan.

6e Target team develops and recommends attack guidance to the commander. Attack guidance details:

- 1) Prioritized list of HPTs.
- 2) Timing, method, and desired effects of attacks.
- 3) Special instructions as required.
- 4) HPT that require BDA.

7a Corps commander articulates priorities for all means of fire support (e.g., RSTA assets, interdiction, CAS, naval surface fires, artillery, EW, PSYOP) and desired effects of fires in support of selected COA.

8a1 In coordination with the corps G3, the FSE ensures that paragraph 3a(2) Fires includes the following:

- a) Outline of fire support plan, synchronization, and integration measures to support each phase of the battle.
- b) Designation of maneuver units which have priority of fires by phase.
- c) Designation of priority of use of low-density munitions.
- d) Description of times, duration, and desired effects of supporting fires.
- e) Establishment of priority for requested joint air and naval surface fires support.

8a2 In coordination with the G3, ALO, NGO, chemical officer and EWO, the FSE ensures that the fire support annex (with accompanying appendices, target list matrices and overlays) reflects:

- 8a2a a) Enemy fire support capabilities, including artillery, air defense, Army aviation, tactical air, EW, naval gunfire, and NBC capabilities.
- 8a2b b) Information regarding friendly forces mission and concept of fires to include joint air and naval forces.
- 8a2c c) All fire support resources assigned, attached, and supporting the corps.
- 8a2f d) Target lists and assignment to a fire support asset for engagement of each target.

9f The corps G3 ensures that necessary information from the fire support plan [i.e., HPTL, AGM, and fire support coordination measures (FSCMs)] is integrated into the corps DST.

16a Fire support plan is rehearsed simultaneously with the maneuver plan in order to ensure appropriate synchronization. Includes CAS, naval surface fires, Army aviation fire support, PSYOP, and EW.

Component C: Fire support plan provides for flexibility.

4b4 The corps FSE provides permissive and restrictive fire control measures as a part of the corps warning order.

- 8a2 In coordination with the G3, ALO, NGO, chemical officer and EWO, the FSE ensures that the fire support annex (with accompanying appendices, target list matrixes and overlays) reflects:
- 8a2d a) Fire support task organization, priorities, and concept for support.
- 8a2m b) Controlled supply rate (CSR).
- 9a The corps fire support coordinator briefs the corps fire support plan to the corps orders group.
- 9a1 a) Fire support organization for combat.
- 9a2 b) Priorities of fire during all phases.

OUTCOME ASSESSMENT

OUTCOME II. All target acquisition assets are positioned to observe, process, and as appropriate, control indirect fire support missions on named areas of interest (NAIs), targeted areas of interest (TAIs) and preplanned targets.	Adequate	Marginal	Not Adequate
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Assessment Statements

- At least one acquisition asset is assigned to each high pay-off target (HPT).
- Each NAI is kept under observation.
- An acquisition asset is in position to detect and track each HPT when the target appears.

PROCESS

OUTCOME II. All target acquisition assets are positioned to observe, process, and as appropriate, control indirect fire support missions on named areas of interest (NAIs), targeted areas of interest (TAIs) and preplanned targets.

Task Elements

- 2f G2 identifies location and availability of all target acquisition assets controlled by G2 and intelligence community, including those at EAC.
- 3d G2 initiates target value analysis (TVA); high value targets (HVTs) are identified and prioritized for enemy COAs.
- 10c Redundant plans are developed by the FSE to assure that all high priority targets can be attacked if primary acquisition or engagement means are unavailable or rendered unusable.
- 12a FSE coordinates with corps G3 and corps engineer to assure that all fire support and target acquisition assets are provided adequate assets to assure survivability and force protection.
- 12c FSE ensures that target acquisition assets and other fire support means are positioned to provide long-range fires in support of the security force.
- 12j FSE coordinates with the corps G4 to assure that replacement equipment for key target acquisition assets is available and positioned to provide immediate redundancy.

OUTCOME ASSESSMENT

OUTCOME III: The corps fire support element (FSE) coordinates continuously with all fire support assets in order to insure their fires are thoroughly integrated, synchronized and effectively delivered to support the corps scheme of maneuver and commander's intent.

Assessment Statements

Component A: Coordination between FSE, command group, and fire support assets is continuous.			
	Adequate	Marginal	Not Adequate

- Corps FSE continuously coordinates with the following elements:
 - Other corps staff elements and corps artillery TOC: Confirm each COA can be implemented.
 - Corps G3:
 - (With corps engineer) Coordinate support for survivability and force protection of fire support and target acquisition assets.
 - Integrate fire support assets into deception plans.
 - ADCOORD:
 - Arrange point air defense for target acquisition assets, fire support systems, and ASPs.
 - Coordinate air defense status and operations.
 - ALO: Synchronize close air support.
 - Corps G4: Coordinate availability and positioning of replacement equipment for target acquisition assets.
 - Corps artillery and maneuver units: Synchronize maneuver plans and fire support plan.
 - Corps targeting team: Obtain target execution updates and target list changes.
 - DOCC and air component commander: Coordinate with JAA T and J-SEAD operations.
 - NGO: Coordinate naval surface fires.
 - EWO and MI brigades: Coordinate electronic warfare.
 - Corps aviation officer: Integrate air assault, observation, and direct fires.
 - Corps engineer: Synchronize FASCAM and obstacle coverage.
 - Corps chemical officer: Coordinate MOPP level and smoke operations.

- FSE briefs and updates command group on progress of preparations, potential targets of opportunity, status and location of enemy fire support assets, and vulnerability of assets to counter fires.
- FSE is kept informed on updated or additional CCIR as the battle progresses.

Component B: Fires support the corps scheme of maneuver within the commander's intent.	Adequate	Marginal	Not Adequate
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- Attack guidance developed by FSCoord includes corps commander's attack criteria.
- FSE keeps the fire support documents (e.g., FSEM, situation maps, DST) current by continuously updating with new targets and targets which have been executed.
- Fires are continuously integrated and synchronized according to METT-T.
- Targets are neutralized, suppressed, or destroyed throughout the battle within the commander's intent.
- Maneuver units are continuously supported during the battle.
- Collection assets tasked to collect BDA information provide timely and accurate reports that enable FSE to identify targets not destroyed IAW destruction criteria.

PROCESS

OUTCOME III: The corps fire support element (FSE) coordinates continuously with all fire support assets in order to insure their fires are thoroughly integrated, synchronized and effectively delivered to support the corps scheme of maneuver and commander's intent.

Task Elements

Component A: Coordination between FSE, command group, and fire support assets is continuous.

- 5a5 FSE coordinates with other corps staff elements and corps artillery tactical operations center (TOC) to ensure that the fire support plan developed for each COA is supportable from their points of view.
- 11b Corps FSE tracks the progress of fire support preparations for upcoming mission and reports/briefs as required.
- 12a FSE coordinates with corps G3 and corps engineer to assure that all fire support and target acquisition assets are provided adequate assets to assure survivability and force protection.
- 12d FSE, ALO, and NGO integrate CAS and naval surface fires in support of the security forces.
- 12f FSE works with the G3 to integrate fire support assets into the corps and joint force deception plan.
- 12g FSE coordinates with the ADCOORD to assure that point air defense is provided for critical target acquisition assets, other fire support systems, and ASPs.
- 12i After coordination with G2 and G3, the corps chemical officer recommends the corps MOPP level and monitors other NBC defensive measures.
- 12j FSE coordinates with the corps G4 to assure that replacement equipment for key target acquisition assets is available and positioned to provide immediate redundancy.

- 20b The corps G2 and FSE provide latest information regarding potential targets of opportunity, as well as enemy vulnerabilities to indirect fires and air-delivered munitions. This will include the status and location of enemy fire support assets and their vulnerability to counter fires.
- 20h The corps commander changes or provides additional CCIR to the G3, who disseminates the CCIR to the FSE and other corps staff members as the battle progresses.

Component B: Fires support the corps scheme of maneuver within the commander's intent.

- 8a1d NOTE: Attack guidance is provided to attack system managers via the attack guidance matrix (AGM). The AGM consists of target categories, specific high-priority targets (HPTs), when targets should be attacked, how they should be attacked, and any restrictions.
- 21e FSE monitors execution of the fire support execution matrix and the employment of fire support IAW the DST.
- 21d FSE processes fire support requests on targets of opportunity within the context of the fire support execution matrix, the commander's intent, and the corps scheme of maneuver. The FSE identifies those targets not destroyed IAW stated destruction criteria and re-targets as appropriate.
- 22c FSE ensures that fires are synchronized and integrated with corps scheme of maneuver by:
- 22c1 a) Performing target analyses.
 - 22c2 b) Coordinating with corps G3 and subordinate FSEs to integrate fires with maneuver.
 - 22c3 c) Coordinating with corps G3, corps artillery, corps ALO, NGO, and the corps aviation officer in order to assure integration of CAS, AI, and naval surface fires into the fight and synchronize their delivery with artillery fires, electronic warfare, and Army aviation attack operations.
 - 22c4 d) Coordinating the timing and duration of offensive electronic warfare (e.g., jamming) to support attacks by lethal systems and corps maneuver.
- 24b FSE quickly reviews and modifies the corps fire support plan to keep pace with the corps ongoing battle and to support unplanned battlefield events.
- 24b1 a) Adds and deletes targets from the corps target list based on coordination with G2 and G3 operations, input from subordinate FSEs, and the corps commander's guidance.
 - 24b2 b) Recommends changes to the DST and CCIR.

OUTCOME ASSESSMENT

OUTCOME IV: Fires are delivered in a manner which avoids fratricide, collateral damage and non-combatant casualties.

Assessment Statements

Component A: Fratricide does not occur.	Adequate	Not Adequate
Component B: Collateral damage is minimized.	Adequate	Not Adequate
Component C: Noncombatant casualties do not occur.	Adequate	Not Adequate

PROCESS

OUTCOME IV: Fires are delivered in a manner which avoids fratricide, collateral damage and noncombatant casualties.

Task Elements

- 4b. The corps FSE provides the following information as a part of the corps warning order:
 - 4b4 a) Permissive and restrictive fire control measures.
 - 4b5 b) Special instructions on rules of engagement, fire support communications, and logistic support.
- 5d FSE coordinates with the G5 to determine locations of inhabited areas, locations of significant historic, cultural, and religious structures, and movements of refugees and other noncombatants.
- 13b6 FSE monitors changes of location of friendly forces, refugees, or other noncombatants.
- 14c1 Planned corps targets that are located beyond the FSCL must be coordinated with the AOC in order to minimize duplication of effort and avoid fratricide.
NOTE: Intense management and coordination must occur between the corps FSE, the DOCC, and the air component commander for JSEAD and JAAT operations.
- 16f Rehearsal includes measures to prevent fratricide, nonessential collateral damage, and noncombatant casualties. Measures include fire support coordination measures, rules of engagement, A²C², and identification, friend or foe (IFF) procedures.
- 18b FSE ensures that fire support coordination measures are established with adjacent and supporting units (including other services) in order to enhance flexibility and eliminate fratricide.
- 23h Update is provided to the corps commander, corps staff, and joint force staff, as well as subordinate and supporting FSEs, in order to assure that the fire support network maintains a current picture of the corps battle.
- 24c Corps ALO determines available CAS/AI and monitors air request net to ensure that fratricide is avoided and that CAS/AI is supporting the corps commander's intent. Changes are recommended to the commander as required.

References

This component identifies the references and sources used by the author to develop the BF Task List. The component provides users with sources for further information.

FMs

FM 1-100	Doctrinal Principles for Army Aviation in Combat Operations, Feb 89
FM 1-103	Airspace Management and Army Air Traffic Control in a Combat Zone, Aug 90
FM 5-33	Terrain Analysis, Jul 90
FM 6-20	Fire Support in the Air Land Battle, May 88
FM 6-20-2	Tactics, Techniques, and Procedures for Corps Artillery, Division Artillery, and Field Artillery Brigade Headquarters, Jan 93
FM 6-20-10	Tactics, Techniques, and Procedures for the Targeting Process, May 96
FM 6-20-30	Tactics, Techniques, and Procedures for Fire Support for Corps and Division Operations, Oct 89
FM 34-1	Intelligence and Electronic Warfare Operations, Sep 94
FM 34-2	Collection Management and Synchronization Planning, Mar 94
FM 34-3	Intelligence Analysis, Mar 90
FM 34-10	Division Intelligence and Electronic Warfare Operations, Nov 86
FM 34-130	Intelligence Preparation of the Battlefield, Jul 94
FM 71-100	Division Operations, Jun 90
FM 71-100 (Draft)	Division Operations (approved Final Draft), June 95
FM 90-14	Rear Battle, Jun 85
FM 90-15	Multi-Service Procedures for the Joint Suppression of Enemy Air Defenses, Jun 90
FM 90-21	(JAAT) Multi-Service Procedures for Joint Attack Team Operations, Oct 91

FMs (Continued)

FM 100-5	Operations, June 93
FM 100-15	Corps Operations, Sept 89
FM 100-26	The Air-Ground Operations System, Mar 73
FM 100-42	US Air Force / US Army Airspace Management in an Area of Operations, Nov 76
FM 100-103	Army Airspace Command and Control in a Combat Zone, Oct 87
FM 101-5	Command and Control for Commanders and Staff, Final Draft, Aug 93
FM 101-5-1	Operational Terms and Symbols, Oct 85

ARTEPs

ARTEP 6-300-1	Army Training and Evaluation Program, Corps Field Artillery Section, Division Artillery and Field Artillery Brigade TACFIRE
ARTEP 100-15-MTP	Mission Training Plan, Corps Command Group and Staff (Draft), May 90

Joint Publications

	Joint Universal Joint Task List, Feb 95
Joint Pub 3-01.4	Joint Tactics, Techniques and Procedures for Joint Suppression of Enemy Air Defenses (JSEAD), Dec 93
Joint Pub 3-09	Doctrine for Joint Fire Support (Draft), Mar 95
Joint Pub 3-52	Doctrine for Joint Airspace Control in the Combat Zone, Dec 93

TRADOC Pamphlet

TRADOC Pam 11-9	Blueprint of the Battlefield, May 91
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U.S. NAVY/US MARINE CORPS PUBLICATIONS

NWP 3-09.11M/FMFM 1-7	Supporting Arms in Amphibious Operations, March 95
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APPENDIX A

Index of Battlefield Functions¹

This component lists the thirty-nine (39) BF's for each BOS which have been identified as relevant to training of U.S. Army tactical echelon units. These BF's were identified based on an analysis of Training and Doctrine Command (TRADOC) Pamphlet 11-9, "Blueprint of the Battlefield". The purpose of this component is to depict the BOS and the BF which define each BOS.

INTELLIGENCE	(1)	Conduct Intelligence Planning
	(2)	Collect Information
	(3)	Process Information
	(4)	Disseminate Intelligence
MANEUVER	(5)	Conduct Tactical Movement
	(6)	Engage Enemy with Direct Fire and Maneuver
AIR DEFENSE	(16)	Take Active Air Defense Measures
	(17)	Take Passive Air Defense Measures
FIRE SUPPORT	(7)	Employ Mortars
	(8)	Employ Field Artillery
	(9)	Employ Close Air Support
	(10)	Conduct Electronic Collection and Attack
	(11)	Conduct PSYOP
	(12)	Employ Chemical Weapons ²
	(13)	Conduct Counter Target Acquisition Operations
	(14)	Employ Naval Surface Fires
MOBILITY AND SURVIVABILITY	(15)	Coordinate, Synchronize and Integrate Fire Support
	(21)	Overcome Obstacles
	(22)	Enhance Movement
	(23)	Provide Countermobility
	(24)	Enhance Physical Protection
	(25)	Provide Operations Security
	(26)	Conduct Deception Operations
	(27)	Provide NBC Defense

¹The term "Battlefield Function (BF)" was designated by TRADOC in September 1996 to replace "Critical Combat Function (CCF)". At the same time the term was redefined as "Processes or activities occurring over time that must be performed to accomplish a mission(s) or supporting critical tasks. It provides task integration, combined arms interaction, and inter-Battlefield Operating Systems (BOSs) linkages." TRADOC also renamed "task analysis" (TA) to "function analysis" (FA).

²Although U.S. national policy has renounced the use of chemical weapons, this BF is retained because it is a function which could be performed by other nations

**COMMAND AND
CONTROL**

- (18) Plan for Combat Operations
- (19) Direct and Lead Unit During Preparation for the Battle
- (20) Direct and Lead Units in Execution of Battle

**COMBAT SERVICE
SUPPORT**

- (28) Provide Transport Services
- (29) Conduct Supply Operations
- (30) Provide Personnel Services
- (31) Maintain Weapons Systems and Equipment
- (32) Provide Health Services
- (33) Treat and Evacuate Battlefield Casualties
- (34) Conduct Enemy Prisoners of War (EPW) Operations
- (35) Conduct Law and Order Operations
- (36) Conduct Civil Affairs Operations
- (37) Provide Sustainment Engineering
- (38) Evacuate Non-combatants from Area of Operations
- (39) Provide Field Services

APPENDIX B

Structure of Battlefield Functions

This component provides a description of each battlefield function (BF) and the battlefield operating system (BOS) with which it is aligned.¹ Included with each BF definition is a listing of major doctrinal topics and aspects addressed by the BF. These definitions provide the necessary framework required to understand the focus of each BF. Under most circumstances, corps will be involved in the accomplishment of some or all aspects of the BF. The involvement can vary from extensive, wherein the BF is a major focus, to minor, wherein the corps only furnishes information. In the latter instances, the involvement may not be sufficient to warrant incorporation into a corps' training program, although the corps' responsibilities are likely addressed in its SOP for tactical operations (TSOP). BF definitions were extrapolated from TRADOC Pam 11-9 "Blueprint of the Battlefield," as well as other doctrinal publications relevant to the applicable BF or BOS.

1. **Intelligence BOS** - The ways and means of acquiring, analyzing, and using knowledge of the enemy, weather, and terrain required by a commander in planning, preparing and conducting combat operations. These BF are continuous throughout the planning, preparation, and execution phases of the battle.

a. **BF (1) Conduct Intelligence Planning** - The development and coordination of information relative to the enemy, weather, and terrain prior to and during the development of the unit OPORD; the planning to collect information from battlefield sources and to acquire intelligence from other headquarters. Focus of this BF is the Intelligence Preparation of the Battlefield (IPB). This BF addresses:

- 1) Collection Plan.
- 2) Integrated threat templates (e.g., doctrinal, event, input to DST).
- 3) Terrain and weather analysis.

b. **BF (2) Collect Information** - Obtaining information in any manner from corps elements and from sources outside the corps (e.g., higher headquarters and adjacent units). This BF includes the tasks associated with managing the processes and activities necessary to collect battlefield information which may eventually be used to provide intelligence relative to the enemy, terrain and weather. This BF addresses:

- 1) Information collected as a result of the collection plan.
- 2) Continuous information collection and acquisition from all sources.

¹The term "Battlefield Function (BF)" was designated by TRADOC in September 1996 to replace "Critical Combat Function (CCF)". At the same time the term was redefined as "Processes or activities occurring over time that must be performed to accomplish a mission(s) or supporting critical tasks. It provides task integration, combined arms interaction, and inter-Battlefield Operating Systems (BOSs) linkages." TRADOC also renamed "task analysis" (TA) to "function analysis" (FA).

c. **BF (3) Process Information** - The conversion of information into intelligence through collation, evaluation, analysis, integration, and interpretation in a continual process. This BF addresses:

- 1) Evaluation of threat information.
- 2) Evaluation of physical environment information.
- 3) Integration of intelligence information.
- 4) Development of enemy intentions.
- 5) Development of targeting information.
- 6) Preparation of intelligence reports.
- 7) Update of situational template.
- 8) Provision of battlefield area reports.

d. **BF (4) Disseminate Intelligence** - Transmission of information by any means (verbal, written, electronic, etc.), from one person or place to another to provide timely dissemination of critical intelligence to all appropriate members of the corps. This BF addresses:

- 1) The sending of processed intelligence in a timely manner to those in the corps who can, by its receipt take appropriate actions to accomplish the mission. This includes intelligence on the enemy, terrain, and weather.
- 2) The sending of raw intelligence directly from those responsible for reconnaissance and surveillance to the commander should that raw intelligence be time sensitive (and not be subject to receipt and processing by intelligence analysts).
- 3) Dissemination of battlefield reports.

2. **Maneuver BOS** - The employment of direct fire weapons, platforms, and systems through movement and fire and maneuver to achieve a position of advantage in respect to enemy ground forces, in order to accomplish the mission. The direct fire weapons are: tank guns; BFV 25mm; anti-tank guns and rockets; attack helicopter guns and rockets; small arms; crew served weapons; directed energy weapons systems.

a. **BF (5) Conduct Tactical Movement** - Position direct fire weapons systems relative to the enemy to secure or retain positional advantage, making full use of terrain and formations. Tactical movement occurs when contact with the enemy is likely or imminent but direct fire engagement has not yet occurred. Units supporting maneuver units are included. This BF addresses:

- 1) Subordinate element OPORD preparation and dissemination.
- 2) Preparation for movement.
- 3) Movement, mounted and dismounted; on and off road.
- 4) Closure of movement - tactical assembly area; tactical positions.
- 5) Navigation.

- 6) Force protection.
- 7) Air movement.

b. **BF (6) Engage Enemy with Direct Fire and Maneuver** - Entering into ground combat with the enemy using direct fire and/or close combat in order to destroy the enemy or cause him to withdraw. This BF relates only to those direct fire weapons systems associated with the Maneuver BOS. This BF is initiated with the OPORD at the completion of the planning phase of the battle and includes all tasks associated with subordinate echelon planning, preparation, and execution of the battle. This BF addresses:

- 1) Subordinate element OPORD preparation and dissemination.
- 2) Preparation of engagement areas.
- 3) Rehearsals of battle plans.
- 4) Target acquisition.
- 5) Fire control and distribution.
- 6) Fratricide.
- 7) Conduct of close combat.
- 8) Integration of direct fire with maneuver.
- 9) Control of terrain.
- 10) Consolidation and reorganization.

3. **Fire Support BOS** - The collective, coordinated, and synchronized use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters), and other lethal and non-lethal means against ground targets in support of maneuver force operations and to achieve the commander's intent and scheme of maneuver. The Fire Support BOS addresses these weapons: mortars, field artillery, close air support, electronic measures, and naval surface fires.

a. **BF (7) Employ Mortars** - Employment of mortars in support of the corps fire support plan by the maneuver unit to place fires on the enemy or terrain to support the commander's concept and intent. This BF initiates with the receipt of an OPORD by the maneuver commander and addresses those tasks required during the preparation and execution phases of the battle.

b. **BF (8) Employ Field Artillery** - The ways and means employed by the corps to cause indirect artillery fires to be placed on the enemy or terrain to support the commander's concept and intent. This BF initiates upon receipt of an OPORD by the corps commander and includes tasks performed during the preparation and execution phases of the battle. The fire support coordination tasks necessary to integrate the field artillery and the maneuver units are the primary focus. This BF does not address those tasks associated directly with firing artillery such as FDC operations, gun operations, etc. This BF addresses:

- 1) Fire support - maneuver unit rehearsals.
- 2) FSE operations during the preparation and execution phase of the battle.
- 3) FSO operations in coordination with the corps commander.
- 4) Positioning and movement within the corps sector or zone.
- 5) Indirect fire missions in support of corps commander's concept and intent.

- 6) Sustainment operations.
- 7) Indirect fire planning as battlefield METT-T change.

c. **BF (9) Employ Close Air Support** - Planning for, requesting, and employing armed aircraft (less attack helicopters) in coordination with other fire support (lethal and non-lethal) against ground targets in support of the corps commander's concept and intent. This BF addresses:

- 1) Air-ground attack requests.
- 2) Air space coordination and management.
- 3) ALO; TACP/FAC; FSCoord/FSO/FIST; USN/USMC NGO, NALO, and SALT tasks that enable air to ground attacks.

d. **BF (10) Conduct Electronic Collection and Attack** - Actions taken to deny the enemy effective command, control, and communications of his own tactical force in support of maneuver commander's concept and intent. This BF includes jamming, deception, and collection.

e. **BF (11) Conduct PSYOP** - Corps supports conduct of psychological activities as an integral part of combat operations to bring psychological pressure to bear on enemy forces and civilians under enemy control in the battle area to assist in the achievement of tactical objectives in support of corps commander's concept and intent.

f. ~~**BF (12) Employ Chemical Weapons**~~² - Employ chemical agents or other means to degrade enemy capabilities in support of corps commander's concept and intent.

g. **BF (13) Conduct Counter Target Acquisition Operations** - Suppress (e.g., using smoke or dazzling illumination) or degrade enemy direct observation, optics, radar, sensors, electronic DF equipment, and imaging systems in support of Corps Commander's concept and intent.

h. **BF (14) Employ Naval Surface Fires** - The means and ends to provide naval gunfire in support of the corps commander's concept and intent.

i. **BF (15) Coordinate, Synchronize and Integrate Fire Support** - Coordination of all fire support means in support of the corps commander's concept and intent. This BF addresses the preparation and execution of tasks necessary to integrate the fire support detailed in the OPORD. The BF integrates BF 7-14 in support of corps commander's concept and intent.

4. **Air Defense BOS** - The means and measures organic or assigned to the corps commander which when employed successfully will nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.

² Although U.S. National Policy has removed the use of chemical weapons, this BF is retained because it is a function which could be performed by other nations.

a. **BF (16) Take Active Air Defense Measures** - Application of firepower to destroy enemy air targets. This BF addresses the coordinating tasks which enable the corps commander to successfully employ any attached or assigned air defense weapons system as well as the tasks necessary to employ all organic weapons systems against enemy air targets. This BF addresses:

- 1) Employment of air defense artillery units.
- 2) Airspace management.
- 3) Early warning.
- 4) Sustainment.

b. **BF (17) Take Passive Air Defense Measures** - The protection of the maneuver force from enemy air by means other than weapons. This BF focuses on the preparation and execution phases of the battle. This BF addresses:

- 1) Early warning.
- 2) Dispersion.
- 3) Cover and concealment.
- 4) Deception.

5. **Battle Command BOS**- The way and means a maneuver commander exercises authority and direction over organic and assigned combat power in the accomplishment of the mission.

a. **BF (18) Plan for Combat Operations** - The integration of all members of the corps in the coordinated development of an operations order which will guide the activities of the corps in conducting combat operations to accomplish assigned missions. The product/outcome of this BF is a briefed, understood OPORD. This BF addresses:

- 1) Receipt and analysis of higher HQ OPORD.
- 2) Issuance of warning order.
- 3) Restated mission statement.
- 4) Commander's estimate process/troop leading procedures.
- 5) Commander's guidance.
- 6) Mission analysis (includes course of action development).
- 7) Decision brief to commander.
- 8) Development of a synchronized OPORD.
- 9) Reproduction and distribution of OPORD to all participants.
- 10) Briefing of OPORD; understanding of order by participants.
- 11) FRAGO planning and issue.

b. **BF (19) Direct and Lead Unit during Preparation for the Battle** - The ways and means to prepare the corps for the battle so that the corps is ready to support the corps commander's concept and intent. This BF addresses:

- 1) Commander's activities.
- 2) Communicating information.

- 3) Briefbacks and backbriefs.
- 4) Rehearsals.
- 5) Management of the means of communicating information.
- 6) Maintaining and updating information and force status.
- 7) Managing information distribution.
- 8) Decisions to act or change ongoing actions.
- 9) Confirming IPB through the reconnaissance effort.
- 10) Determining actions to implement decisions.
- 11) Providing command presence.
- 12) Maintaining unit discipline.
- 13) Synchronizing tactical operations (e.g., execution matrix, DST).
- 14) TOC operations (e.g., staff integration and battle tracking).
- 15) Continuity of command.
- 16) Second in command (2IC) responsibilities.
- 17) Continuous and sustained operations.
- 18) Communications (e.g., planning, installation and operation of systems, management, site election).

c. **BF (20) Direct and Lead Units in Execution of Battle** - The ways and means to command and control in the corps' execution of the battle plan (engaging the enemy in battle) to accomplish the corps commander's concept and intent. This BF addresses:

- 1) Directing the conduct of the battle.
- 2) Issuing orders.
- 3) Command presence.
- 4) Information distribution.
- 5) Decisions on need for action or change.
- 6) Maintaining unit discipline.
- 7) Synchronizing tactical operations.
- 8) TOC operations (includes CP displacement, security, survivability).
- 9) Continuity of command (e.g., C2 redundancy).
- 10) Second in command (2IC) responsibilities.
- 11) Continuous and sustained operations.
- 12) Consolidation and reorganization.

6. **Mobility and Survivability BOS** - The ways and means of the force that permit freedom of movement, relative to the enemy, while retaining the force's ability to fulfill its primary mission as well as the measures the force takes to remain viable and functional by protection from the effects of enemy weapons systems and natural occurrences.

a. **BF (21) Overcome Obstacles** - Enabling the maneuver force to maintain its mobility by removing or clearing/reducing natural and man-made obstacles. This BF will initiate after receipt of the OPORD and address subordinate echelon planning as well as corps preparation and execution tasks necessary to achieve the corps commander's concept and intent. This BF addresses:

- 1) Clearing a path or lane for personnel and equipment through a battlefield obstacle.
 - 2) Passing through or over any battlefield terrain feature, wet or dry, that is too wide to be overcome by organic/self bridging.
- b. **BF (22) Enhance Movement** - Provision of adequate mobility for the maneuver unit in its area of operations. This BF addresses:
- 1) Construction and repair of combat roads and trails.
 - 2) Construction or repair of forward airfields.
 - 3) Facilitating movement on routes. (This includes control of road traffic and control of refugees and stragglers.)
 - 4) Tracking status of routes.
 - 5) Host nation support.
- c. **BF (23) Provide Countermobility** - Delaying, channeling, or stopping offensive movement by the enemy consistent with the commander's concept and intent by enhancing the effectiveness of friendly direct and indirect weapons systems. This BF addresses:
- 1) Emplacement of obstacles.
 - 2) Terrain enhancement.
- d. **BF (24) Enhance Physical Protection** - Providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies. This BF addresses:
- 1) Construction of fighting positions.
 - 2) Preparation of protective positions.
 - 3) Employment of protective equipment.
- e. **BF (25) Provide Operations Security** - Denying information to the enemy about friendly capabilities and intentions by identifying, controlling, and protecting indicators associated with planning and conducting military operations. This BF addresses:
- 1) Analysis to determine key assets and threats to them.
 - 2) Cover and concealment.
 - 3) Camouflage.
 - 4) Noise and light discipline.
 - 5) Counter reconnaissance.
 - 6) Smoke/obscurants.
 - 7) Physical security measures.
 - 8) Signal security.
 - 9) Electronic security.
- f. **BF (26) Conduct Deception Operations** - Taking actions to mask the real objectives of tactical operations in order to delay effective enemy reaction. This BF addresses:

- 1) Physical deception.
- 2) Electronic deception.

g. **BF (27) Provide NBC Defense** - The avoidance of contamination; the protection of people, objects or areas from chemical or biological agents by absorbing, destroying, neutralizing, or otherwise rendering harmless or removing such agents; and the removal of radioactive material. This BF addresses:

- 1) Decontamination of individual soldiers and equipment.
- 2) Decontamination of weapon systems and supplies.
- 3) Hasty and deliberate decontamination.
- 4) Avoidance of contaminated areas.
- 5) NBC reconnaissance.
- 6) NBC defensive measures.
- 7) NBC warning.

7. **Logistics BOS** - The support, assistance, and service provided to sustain forces, primarily in the area of logistics, personnel services, and health services.

a. **BF (28) Provide Transport Services** - Providing or coordinating for transportation which will assure sustainment support operations in support of the corps commander. Upon receipt of an OPOD, this BF addresses preparation and execution tasks necessary to achieve transportation support of the maneuver force. This BF addresses:

- 1) Movement of cargo, equipment and personnel by surface or air.
- 2) Loading, transloading and unloading material and supplies.

b. **BF (29) Conduct Supply Operations** - Providing the items necessary to equip, maintain, and operate the force during the preparation and execution phases of the battle. This BF addresses:

- 1) Requesting, receiving, procuring, storing, protecting, relocating, and issuing supplies to the specific elements of the force.
- 2) Providing munitions to weapons systems.
- 3) Providing fuel and petroleum products to equipment and weapons systems.
- 4) Reporting status.

c. **BF (30) Provide Personnel Services** - Management and execution of all personnel-related matters to sustain the force. This BF addresses:

- 1) Personnel Administrative Services.
 - a) Replacement, casualty reporting, casualty tracking.
 - b) Awards and decorations.
 - c) Postal operations.
 - d) Replacement operations.

- 2) Financial services.
- 3) Unit ministry teams.
- 4) Legal services.
- 5) Public affairs.
- 6) Reporting personnel status.
- 7) Preservation of the force through safety.
- 8) Management of stress.

d. **BF (31) Maintain Weapons Systems and Equipment** - Preservation and repair of weapons systems and equipment. This BF includes the provision of repair parts and end items to all members of the combined arms team before, during and after the battle. Included also is doctrinal echeloning of maintenance (organization, DS, GS). This BF addresses:

- 1) Preventive maintenance.
- 2) Recovery.
- 3) Diagnosis, substitution, exchange, repair, and return of equipment and weapons systems to the combined arms force.
- 4) Reporting status.

e. **BF (32) Provide Health Services** - Performance, provision or arrangement for health services regardless of location, to promote, improve, conserve, or restore the mental or physical well-being of individuals or groups. This BF addresses:

- 1) Preventive medicine.
- 2) Field sanitation.

f. **BF (33) Treat and Evacuate Battlefield Casualties** - Application of medical procedures on battlefield casualties beginning with "buddy aid" through trained medical personnel. The BF includes movement of casualties from the forward edge of the battlefield back to theater-level medical facilities. This BF addresses:

- 1) Triage of battlefield casualties.
- 2) Treatment and movement of casualties to rear (Medevac).
 - a) Identification of levels of care and locations.
 - b) Synchronization and coordination of movement of medical facilities to ensure continuity of care.
 - c) Establishment and maintenance of communications with redundant means.
 - d) Rehearsals.
 - e) Resupply.
 - f) Casualty reporting.
- 3) Evacuation:
 - a) Ground ambulance.
 - b) Aero Medevac.
 - c) Non-standard evacuation.

- 4) Handling and processing the remains of soldiers who have died of wounds.
- 5) Reporting status.

g. **BF (34) Conduct Enemy Prisoners of War (EPW) Operations** - The collection, processing, evacuation, and safeguarding of enemy prisoners of war. This BF addresses:

- 1) Collecting and evacuating EPW.
- 2) Searching, segregating, safeguarding, silencing, and rapid rearward movement of EPW.
- 3) Securing EPW.
- 4) Operating EPW holding areas.

h. **BF (35) Conduct Law and Order Operations** - Enforcement of laws and regulations and maintenance of unit and personnel discipline.

i. **BF (36) Conduct Civil Affairs Operations** - Conduct of those phases of the activities of a tactical commander which embrace the relationship between the military forces and civil authorities, and the citizens in a friendly or occupied country or area when U.S. military forces are present.

j. **BF (37) Provide Sustainment Engineering** - The repair and construction of facilities and lines of communication. This BF addresses:

- 1) Rear area restoration.
- 2) Construction and maintenance of lines of communication (roads, railroads, ports, airfields).
- 3) Construction support:
 - a) Marshaling, distribution, and storage facilities.
 - b) Pipelines.
 - c) Fixed facilities.
 - d) Drill wells.
 - e) Dismantlement of fortifications.

k. **BF (38) Evacuate Non-combatants from Area of Operations** - The use of available military and host-nation resources for the evacuation of US forces, dependents, US government civilian employees, and private citizens (US and other). This BF addresses:

- 1) Medical support.
- 2) Transportation.
- 3) Security.
- 4) Preparation of temporary shelters.
- 5) Operation of clothing exchange facilities.
- 6) Operation of bathing facilities.
- 7) Graves registration.
- 8) Laundry.
- 9) Feeding.

1. **BF (39) Provide Field Services** - Performance of service logistics functions by and for Army elements in the field. This BF addresses:

- 1) Clothing exchange.
- 2) Bathing facilities.
- 3) Graves registration.
- 4) Laundry and clothes renovation.
- 5) Bakeries.
- 6) Feeding (rations supply, kitchens).
- 7) Salvage.

APPENDIX C

List of Abbreviations and Acronyms

This component identifies the acronyms used by the author in the task analysis. Acronyms are derived from relevant doctrinal publications.

A

A2C2	Army airspace command and control
AAVN	Army aviation
AAR	after action review
ABCCC	airborne battlefield command and control center
ACE	analysis and control element
ADA	air defense artillery
ADC	assistant division commander
ADCOORD	air defense coordinator
AFATADS	Advanced Field Artillery Tactical Data System
AFIEW	Air Force Intelligence and Electronic Warfare
AGM	attack guidance matrix
AI	air interdiction
ALO	air liaison officer
AMTP	ARTEP mission training plan
ANGLICO	air and naval gunfire liaison company
AO	area of operations
AOC	air operations center
ARI	Army Research Institute
ARTEP	Army Training and Evaluation Plan
ASAS	All Source Analysis System
ASOC	air support operations center
ASP	ammunition supply point
ASR	ammunition supply rate
ATACMS	Army tactical missile system
ATO	air tasking order
Avn	aviation
Avn Off	aviation officer

B

BCD	battlefield coordination detachment
BDA	battle damage assessment
Bde	brigade
BDLT	base defense liaison team
BF	battlefield function
Bn	battalion
BOS	battlefield operating system (s)

C

CA	combat assessment; civil affairs
CAS	close air support
CCF	critical combat function
CCIR	commander's critical intelligence requirements
CE	communications and electronics
CIC	combat information center
CL V	Class V (Ammunition)
COA	course of action
COLT	combat observation and lasing team
CP	command post
C/S	chief of staff
CS	combat support
CSS	combat service support
CSR	controlled supply rate

D

DCG	deputy commanding general
DFSCoord	deputy fire support coordinator
Div	division
DivArty	division artillery
DISCOM	division support command
DOCC	deep operations coordination cell
DP	decision point
DS	direct support
DST	decision support template
DST-Synch	decision support template and synchronization matrix

E

EA	electronic attack
EAC	echelons above corps
ECCM	electronic counter counter measures
ECM	electronic countermeasures
EEFIR	essential elements of friendly information requirements
EEI	essential elements of information
EPB	electronic preparation of the battlefield
EPW	enemy prisoner of war
EW	electronic warfare
EWO	electronic warfare officer

F

FA	function analysis
FAADC3I	forward air defense command, control, communications, and intelligence
FAC	forward air controller

FARP	forward arming and refueling point
FASCAM	family of scatterable mines
FCT	firepower control team (ANGLICO)
FEBA	forward edge of the battle area
FFIR	friendly forces information requirements
FIST	fire support team
FIST-V	fire support team - vehicle
FLOT	forward line of own troops
FM	field manual
FO	forward observer
FRAGO	fragmentary order
FS	fire support
FSCL	fire support coordination line
FSCM	fire support coordinating measure
FSCoord	fire support coordinator
FSE	fire support element
FSO	fire support officer

G

GI	Assistant Chief of Staff, Personnel
G2	Assistant Chief of Staff, Intelligence
G3	Assistant Chief of Staff, Operations
G4	Assistant Chief of Staff, Logistics
G5	Assistant Chief of Staff, Civil Affairs
GLO	ground liaison officer
GS	general support
GSR	general support-reinforcing; ground surveillance radar
GST	ground support terminal

H

HPT	high-payoff target
HPTL	high-payoff target list
HVTL	high-value target list

I

IAW	in accordance with
ICM	improved conventional munitions
IEW	intelligence and electronic warfare
IFF	identification, friend or foe (radar)
IPB	intelligence preparation of the battlefield

J

JAAT	joint air attack team
JFACC	joint force air component commander

	JIC	joint intelligence center
	JIPTL	joint integrated prioritized target list
	JMDT2	Joint and Multi-Service Distributed Training Testbed
	JSEAD	joint suppression of enemy air defenses
	JSTARS	Joint Surveillance Target Attack Radar System
	JTCB	joint targeting coordination board
	JTF	joint task force
L		
	LLTR	low-level transit route
	LNO	liaison officer
	LOC	lines of communication
	LRSU	long-range surveillance unit
	LZ	landing zone
M		
	MEA	munitions effects assessment
	METT-T	mission, enemy, terrain, troops, and time available
	MI	military intelligence
	MOPP	mission-oriented protective posture
	MSR	main supply route
	MTP	mission training plan
N		
	NAI	named area of interest
	NALO	naval aviation liaison officer (ANGLICO)
	NBC	nuclear, biological, and chemical
	NCO	noncommissioned officer
	NFA	no-fire area
	NGO	naval gunfire officer (ANGLICO)
	NSF	naval surface fires
O		
	Off	officer
	OPCON	operational control
	OPORD	operation order
P		
	Pam	pamphlet
	PIR	priority intelligence requirements
	PSYOP	psychological operations

R

RAOC	rear area operations center
RFA	restrictive fire area
ROE	rules of engagement
ROZ	restricted operations zone
R&S	reconnaissance and surveillance
RSR	required supply rate
RSTA	reconnaissance, surveillance, and target acquisition

S

SACC	supporting arms coordination center
SADARM	Search and Destroy Armor Munitions
SALT	supporting arms liaison team (ANGLICO)
SEAD	suppression of enemy air defenses
SIGSEC	signal security
SITREP	situation report
SOCCORD	special operations coordinator
SOF	special operations forces
SPOTREP	spot report

T

TA	task analysis
TACP	tactical air control party
TAI	targeted area of interest
TCF	tactical combat force
TOC	tactical operations center
TRADOC	Training and Doctrine Command
TSOP	tactical standing operating procedures
TSS	target selection standards
TVA	target value analysis

U

UAV	unmanned aerial vehicle
UBL	unit basic load
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy

W

WAM	wide area munition
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